





D. A. NEALE,  
WASHINGTON, D.C.



22500487684



















# REPORT

OF THE

# COMMISSIONER OF PATENTS

FOR THE YEAR 1858.

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ARTS AND MANUFACTURES,  
IN THREE VOLUMES.

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VOLUME I.

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REPORT

COMMISSIONER OF PATENTS

In the House of Representatives

March 2, 1858

Ordered, That there be printed in the Mechanical part of the Patent Office Report for the year 1857, the Report of the Commissioner of Patents, and that the same be printed for the use of the members of the House of Representatives.

FOR THE YEAR 1858.

Allen

J. C. ALLEN, Clerk.

ARTS AND MANUFACTURES,  
IN THREE VOLUMES.

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HOUSE OF REPRESENTATIVES

REPORT

COMMISSIONER OF PATENTS

IN THE HOUSE OF REPRESENTATIVES,

March 2, 1859.

*Resolved*, That there be printed of the Mechanical part of the Patent Office Report five thousand copies for the use of the Patent Office, and fifteen thousand for the use of the members of the House of Representatives.

Attest:

J. C. ALLEN, *Clerk*.

ARTS AND MANUFACTURES

VOLUME I.



UNITED STATES PATENT OFFICE

January 31, 1858

Sir: As required by the 14th section of the Act approved March 3, 1837, I have the honor to transmit herewith the Annual Report of the Office for the year 1857, which I have to request that you will lay before the Congress of the United States, and direct them for the use of the House of Representatives. I have the honor to be, very respectfully, your obedient servant,

Attch:

J. H. HOLMES, Clerk

Commissioner of Patents

Hon. James A. Orr,

Speaker of the House of Representatives



UNITED STATES PATENT OFFICE,

*January 31, 1859.*

SIR: As required by the 14th section of the act approved March 3, 1837, I have the honor to transmit herewith the Annual Report of this Office for the year 1858, which I have to request may be laid before the Congress of the United States.

I have the honor to be, very respectfully, your obedient servant,

J. HOLT,

*Commissioner of Patents.*

Hon. JAMES L. ORR,

*Speaker of the House of Representatives.*







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# REPORT

OF THE

# COMMISSIONER OF PATENTS

FOR THE YEAR 1858.

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UNITED STATES PATENT OFFICE,  
*January 31, 1859.*

SIR: I have the honor to submit the following tables as illustrating the operations and condition of this office for the year closing the 31st December, 1858 :

## No. 1.

Number of applications for patents during the year 1858.....	5,364.
Number of patents granted, including designs, re-issues, and additional improvements.....	3,710.
Number of caveats filed.....	943.
Number of applications for extensions of patents.....	24.
Number of patents extended.....	20.
Number of patents expired on 31st December, 1858.....	563.

Of the patents granted, there were—

To citizens of the United States.....	3,668.
To subjects of Great Britain .....	20.
To subjects of the French empire.....	14.
To subjects of other foreign governments.....	8.
Total.....	3,710.



The patents issued to citizens of the United States were distributed among the several States, Territories, &c., as follows:

New York.....	1,075
Pennsylvania.....	447
Massachusetts.....	438
Ohio.....	302
Connecticut.....	211
Illinois.....	155
New Jersey.....	126
Maryland.....	82
Indiana.....	82
Virginia.....	61
Maine.....	58
Michigan.....	54
Wisconsin.....	54
District of Columbia.....	52
New Hampshire.....	51
Rhode Island.....	48
Missouri.....	46
Vermont.....	42
Louisiana.....	34
Iowa.....	33
Mississippi.....	31
Kentucky.....	30
Alabama.....	24
California.....	23
North Carolina.....	22
Georgia.....	21
Tennessee.....	19
South Carolina.....	12
Texas.....	10
Delaware.....	8
Florida.....	4
Washington Territory.....	4
Arkansas.....	3
Minnesota.....	2
Kansas Territory.....	1
United States navy.....	2
United States army.....	1
Total.....	<u>3,668</u>

Of the 3,710 patents thus issued, 561 were for inventions relating to agricultural implements and processes, of which 152 were for improvements in reaping and mowing machines; 42 were for improvements in cotton gins and presses, and in packing cotton; 164 for improvements in the steam-engine; 198 for improvements in railroads, railroad cars, &c.; and 116 for improvements in the sewing-machine. Since the issue of the first patent for the latter to J. J. Greenough, in 1842, two hundred and eighty-five patents have been granted for



improvements upon it. This machine, so wonderful alike for the delicacy and accuracy as for the simplicity of its operations, may now be regarded as rapidly approaching perfection, and is destined to bless all lands with its truly beneficent ministrations. In a form so cheap as to be within the reach of the humblest household, it now enables a single female to perform, within the accustomed hours of labor, with slight fatigue, an amount of sewing which would be a painful task for twenty-five operatives stitching with the hand and needle. The belief is confidently entertained that at no distant day it will become almost as universal as were the distaff and spinning-wheel of the olden time; but, unlike these memorials of ceaseless toil, it will enter the homes of impoverished and suffering humanity, to lighten the burdens and brighten the lives of those whose elevation and happiness have been the unceasing care, as they are now the crowning glory, of the Christian civilization of the world.

## No. 2.

*Statement of moneys received at the Patent Office during the year 1858.*

Received on applications for patents, re-issues, additional improvements, extensions, caveats, disclaimers, and appeals .....	\$188,087 00
Received for copies, and for recording assignments.....	15,629 16
Total.....	<u>203,716 16</u>

## No. 3.

*Statement of expenditures from the patent fund during the year 1858.*

For salaries .....	\$82,073 41
Temporary clerks.....	42,355 03
Contingent expenses.....	37,803 90
Payment to judges in appeal cases.....	200 00
Refunding money paid into the treasury by mistake	374 75
Refunding money on withdrawals.....	30,386 65
	<u>193,193 74</u>

## No. 4.

*Statement of the condition of the patent fund.*

Amount to the credit of the patent fund, 1st January, 1858.....	\$39,719 46
Amount paid in during the year.....	203,716 16
Total.....	<u>243,435 62</u>
Deduct amount of expenditures during the year.....	193,193 74
Leaving in the treasury, 1st January, 1859.....	<u>50,241 88</u>



*Table exhibiting the business of the office for seventeen years, ending December 31, 1858.*

Years.	Applica- tions filed.	Caveats filed.	Patents issued.	Cash received.	Cash expend- ed.
1842-----	761	291	517	\$36,505 68	\$31,241 48
1843-----	819	315	531	35,315 81	30,776 96
1844-----	1,045	380	502	42,509 26	36,344 73
1845-----	1,246	452	502	51,076 14	39,395 65
1846-----	1,272	448	619	50,264 16	46,158 71
1847-----	1,531	533	572	63,111 19	41,878 35
1848-----	1,628	607	660	67,576 69	58,905 84
1849-----	1,955	595	1,070	80,752 78	77,716 44
1850-----	2,193	602	995	86,927 05	80,100 95
1851-----	2,258	760	869	95,738 61	86,916 93
1852-----	2,639	996	1,020	112,056 34	95,916 91
1853-----	2,673	901	958	121,527 45	132,869 83
1854-----	3,324	868	1,902	163,789 84	167,146 32
1855-----	4,435	906	2,024	216,459 35	179,540 33
1856-----	4,960	1,024	2,502	192,588 02	199,931 02
1857-----	4,771	1,010	2,910	196,132 01	211,582 09
1858-----	5,364	943	3,710	203,716 16	193,193 74

It will be observed that the depression under which the business of the office was laboring at the date of the last annual report has passed away, and that the rebound from the disastrous effects of the revulsion of 1857, then so confidently predicted, has already been fully realized. The applications of 1858 amount to 5,364 against 4,771 in 1857 and 4,960 in 1856, while the receipts show an excess over the expenditures of \$10,522 42 against a deficit of \$15,450 08 in 1857.

From the most reliable sources of information to which access could be had, the subjoined table has been compiled, with a view of exhibiting the comparative progress of inventions for a single year in the several countries therein enumerated.

Country.	Patents granted in 12 months.	Population.
France-----	5,820	35,781,628
United States-----	3,710	23,191,918
Great Britain (sealed)-----	1,890	27,511,447
Belgium-----	1,406	4,426,202
Austria-----	703	36,514,466
Sardinia-----	171	4,368,972
Saxony-----	107	1,828,732
Sweden-----	64	3,482,541
Victoria (Australia)-----	53	410,766
Prussia-----	49	16,923,721
Bavaria-----	41	4,519,546
Netherlands-----	39	3,203,232
Russia-----	26	69,660,146
Hanover-----	20	349,958



It is a fact, as significant as it is deplorable, that of the 10,359 inventions shown to have been made abroad during the last twelve months, but forty-two have been patented in the United States. The exorbitant fees exacted of the foreigner, and the severity of the offensive discrimination established to his prejudice, afford a sufficient explanation of this result. Were we to judge alone from the ninth section of the act of 1836, it might well be concluded that the government of this country regarded an invention made beyond the seas as something intrinsically dangerous, if not noxious, the introduction of which it is morally just and politically wise to burden with taxation, just as you would thus burden the importation of some foreign poisonous drug. There is a loftier view of this question, and one deemed more in harmony with the progressive spirit of the age—a view which hails the fruits of the inventive genius, in whatever clime matured, as the common property of the world, and gives them cordial welcome as the common blessings of the race to whose amelioration they are devoted.

Since the month of November, 1857, a board temporarily organized, and consisting of three examiners, specially detailed for this duty, have been occupied in the examination of appeals from the decisions of the primary examiners to the Commissioner. During the past year they investigated and disposed of 535 cases, in most of which they have submitted elaborately prepared reports. The results of their action have been eminently satisfactory, and have commanded, it is believed, the entire confidence of the country. The withdrawal of these officers from their respective classes has practically reduced the examining corps to nine instead of twelve, the number at which it was fixed in 1856. The applications of that year amounted to 4,960, those of 1858 amounted to 5,364, so that with a reduced force there is a heavy increase of the labor to be performed. This is unfortunate and to be deplored in reference alike to the public and the inventor. The former has a deep interest in that thorough and faithful examination of applications contemplated by the patent laws, in order that rights which belong to all may not be unjustly monopolized by one; the latter has the same interest, lest a patent, hastily and incautiously granted, should prove, in his hands, but a lure to draw him into harassing and impoverishing litigation. The legalization of this board, and the restoration of examiners to the three classes now virtually deprived of them, would furnish at once the relief required.

Since the establishment of this temporary board of appeals, the classes from which its members were respectively withdrawn have been in charge of those who have the rank and pay of assistant examiners only. In the new position, however, assigned them they have had imposed upon them the responsibilities of examiners in chief, and it is due to them to say that they have discharged their duties with zeal and fidelity. In my judgment, it is but just that they should be compensated according to the character of the services they have rendered. Assistant examiners similarly circumstanced were provided for by Congress in 1856, and I commend the claims of those now referred to to your favorable consideration.

There are now on file in this office upwards of twenty thousand models belonging to rejected cases. For a series of years they have,



for want of sufficient room, been kept in a condition little favorable to their preservation or usefulness. They present a chaotic and partially dilapidated mass of mechanical devices of no value as compared with the space they will occupy, and the expense their repair, arrangement, and preservation will involve. The fact that they are illustrations of inventions which have been determined to be not patentable, generally for want of novelty, is proof conclusive that they are, in effect, but duplicates of illustrations previously existing, and a large portion of which are already preserved by the office in patented cases. There would seem, therefore, to be no adequate motive for permitting them longer to encumber the building. The west wing of the Patent Office, to which, if retained, they must be transferred, is approaching completion ; and the present moment, before the heavy expense incident to their restoration and custody is incurred, is deemed appropriate for deciding the final disposition which shall be made of them.

The defects in the existing patent laws have again and again been pointed out in the annual reports of this office, and are believed to be thoroughly understood and appreciated by the country. The subject has been so often and so earnestly pressed upon the consideration of Congress, that I cannot regard it as my duty, if, indeed, it would be my privilege, to renew the discussion at this moment. I cannot, however, forbear expressing again, with emphasis, my conviction as to the necessity of a change in that feature of the existing law which withholds from parties to controversies pending in this office the process of subpoena for compelling the attendance of witnesses and the production of papers. Every judicial tribunal in the land, from the highest to the lowest, no matter how paltry the amount in contest, is armed with this authority, without which, indeed, the administration of public justice would prove but little better than a mockery. With the issues of fact to be tried here are often bound up the entire fortunes of inventors, and the interests they involve are to be estimated by thousands and hundreds of thousands of dollars. Under the pressure of legislation, the parties to these issues are driven into this office, and compelled to have them investigated and decided here, while at the same time they are denied the only instrumentality by which their rights can be vindicated and maintained. They are thus forced to beg their testimony as an alms, or buy it as they would their provisions upon the shambles of the market. They are completely at the mercy of those witnesses who sell the truth, and are, of course, often subjected to the most onerous, and not unfrequently to the most infamous exactions. It is a gross and monstrous injustice, which admits of no defence, of no palliation, and which cannot fail to shock the moral sense of all who, in the heady current of political life, can be induced to pause long enough to contemplate its revolting features. It may well be doubted whether an evil of such deformity, and unredeemed as it is by any pretence of right or reason, would, if exposed as this has been, under any other form of government upon the earth, have been permitted to endure for a single day.

In view of the frequency with which the proposed changes in the patent laws have been urged upon the notice of Congress, it has been with extreme diffidence that I have ventured even a passing allusion



to the subject. A just estimate of the magnitude of the issues of which this office has charge, and a conviction of the vastly increased efficiency which these changes would secure to its administration, must be my apology. A class of men who have given to their native land and to the world the cotton gin, the steam-engine, the electric telegraph, the reaper, the planing and the sewing machines—inventions whose beneficent influences tell with measureless power upon every pulsation of our domestic, social, and commercial life—may well be pardoned for believing that their wants should not be treated with entire indifference by that body which represents alike the intellect and heart, as it does the material interests of the great country of which they are citizens.

J. HOLT.

Hon. JAMES L. ORR,  
*Speaker of the House of Representatives.*



ALPHABETICAL LIST OF PERSONS WHOSE PATENTS FOR INVENTIONS AND  
DISCOVERIES HAVE EXPIRED DURING THE YEAR 1858.

No.	Patentee.	Invention or discovery.	Class.
3691	Abbé, Alanson .....	Corselet for curved spines, &c .....	20
4001	Ackerman, Gershom L .....	Wheels, carriage .....	10
376	Adams, Nathaniel .....	Moulding and pressing brick .....	13
3769	Adams, Seth .....	Printing-presses .....	18
3744	Adams, Thomas F .....	Printing in colors, machine for .....	18
3416	Allen, William K .....	Ploughs, adjusting .....	1
3827	Amelung, H. A .....	Lard, preparing .....	4
3711	Ansell, John, and James Gal- lery.	Grist-mills .....	13
3468	Arnold, Erastus .....	Grinding grain, portable mill for .....	13
3665	Arnold, William E .....	Washing-machines .....	17
3618	Avery, Wyllys .....	Turning wood tapering .....	14
3508	Bailey, Loammi .....	Stoves .....	5
3683	Baker, Horace .....	Barrels, machinery for making .....	14
3731	Baker, C. B., and E. Gifford ..	Brick-presses .....	15
3552	Barber, Sprague .....	Steam valves, conical seat .....	6
3843	Barbour, Horace, and John Gleason.	Carding fibrous substances, self-strip- ping card for.	3
3661	Barkdull, Joseph S .....	Crimps for collar pads .....	16
3676	Barnum, Daniel .....	Boiler, steam-engine, regulating the supply of water to.	6
3600	Bartley, Jonathan P .....	Shingle-cutter .....	14
3755	Bartol, Barnabas H .....	Steam valves, method of connecting the action of the cut-off and.	6
3707	Barton, Gardner, jr .....	Engines, fire .....	11
3438	Battin, Joseph .....	Coal, breaking .....	5
3539	Bay, James M .....	Railroads, connecting cast iron rails for ..	9
251	Bayley, Moses .....	Rotary press for woollen goods .....	12
3645	Baylor, Peter .....	Boring-machines, method of securing, to the article to be bored.	14
3451	Bazin, S. and J. A .....	Ropes, machinery for laying and wind- ing the same into coils.	3
3767	Beecher, Mather .....	Bark-mill for grinding tanners' bark ..	13
3557	Bennet, William .....	Ships, cellars, &c , mode of calking the seams of.	7
3571	Bennett, Epenetus A .....	Trusses .....	20
3454	Benson, Joseph .....	Oil-feeders .....	5
3613	Bent, Thomas, assignor to W. and R. P. Resor.	Stoves, cooking .....	5
3556	Bentley, Harness .....	Churns .....	1
3470	Bentz, Samuel .....	Stoves, cooking .....	5
169	Bigelow, Erastus B .....	Lace, power loom for weaving .....	3
3611	Bingham, Albert .....	Bolt in door fastenings, operating the ..	2
3819	Birdsell, James .....	Cultivator teeth .....	1
3699	Black, John .....	Mill-stones, dressing .....	15
3730	Blaney, Benjamin .....	Warming buildings, apparatus for .....	5
3399	Booth, John, and William H. Stevenson.	Brick-moulding machines .....	15
3636	Bradley, Jephtha .....	Furnaces, air-heating .....	5
3834	Bradley, Leman .....	Furnaces for smelting iron .....	2
3853	Bradley, Leman .....	Furnaces of steam-boilers .....	6
3397	Brayton, William H .....	Loom for regulating the delivery of the warp from the warp beam.	3
3525	Breuer, Dierck .....	Planting-machines .....	1
3596	Broadmeadow, Simeon .....	Steel, manufacture of .....	2
3605	Broadmeadow, Simeon .....	Iron, wrought, mode of obtaining di- rectly from the ore.	2



*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3409	Broadmeadow, S., assignor to Wm. Green.	Furnace, reverberatory, for smelting or puddling iron.	2
3455	Brower, Jacob W	Smut-machines	1
3770	Brown, Benjamin H	Brick-presses	15
3704	Brown, Charles W	Tonguing and grooving machines	14
3474	Brown, Harvey	Ploughs, combined	1
3688	Brown, William	Tanning	16
3641	Bruce, Aaron F	Hemp and flax break	3
3680	Buchanan, Ryburn	Bolter for bolting flour	13
3484	Buel, Abel B	Harness, check-hooks for	16
3476	Bulkley, Ralph	Propelling boats and other vessels, oblique paddle-propeller for.	7
3752	Bull, J. H. and R. H	Balance-spring	12
3608	Burke, W. A., assignor to Amoskeag Manufacturing Co.	Dyeing yarn, machinery for	4
3722	Burt, Henry	Machinery, governor for regulating the movements of mill-wheels, steam-engines, and other.	13
3519	Bush, Rosswell	Stoves, cooking	5
3402	Butler, Constant B	Hemp-breaker and cleaner	3
3712	Butterfield, Benjamin	Railroads, key for fastening the rails of, to their chairs.	9
3640	Camp, Henry W	Stoves, cooking	5
3530	Carnegy, John	Water-wheels, current	11
3741	Carr, W. and J., and J. Shannon	Fish-nets	3
3521	Carver, Eleazer	Ginning cotton, saw-gin for	3
3689	Carver, George	Brushes, scrubbing	17
1710	Cary, Jonathan H	Turning spools	14
3558	Cathcart, Charles W	Threshing-machines	1
3733	Chamberlin, Edward	Saleratus, making	4
3774	Chandler, Adoniram	Life-preserver	7
3852	Chandler, Thomas, and Asa D. Reed.	Winnowing-machines	1
3679	Chatterton, Richard D	Paddle-wheels of steamboats, &c	7
3445	Chesnut, William D	Cars, railroad, locomotive, &c., coupling bars for.	10
3572	Childs, A. D	Horse-power for driving machinery	13
3547	Choate, Warren C	Square-rigged vessels, forming and rigging the sails of.	7
3656	Chollar, J. B., and H. Parmlee, assignors to Chollar, Jones, and Low.	Stoves, railway	5
3723	Clark, Edwin	Cutters, sausage meat	17
3499	Clark, James M	Smut-machines	1
3400	Cline, John	Stoves, air-tight	5
3660	Cochrane, John	Boilers, steam, &c, regulating the supply of water to.	6
3422	Coffin, James B	Washing-machine	17
3737	Cole, Erastus E	Saws, circular, for cutting off piles under water.	14
3696	Cole, Thomas, and John Littlefield.	Winnowing-machines	1
3837	Cole, Tillott	Shingles, cutting, machine for	14
3548	Coleman, Obed M	Piano-fortes	18
3395	Colton, Sabin	Lock, combination	2
3820	Combs, John P	Tailors' measures	21
3872	Converso, William F., and Richard H. Penny, and Richard H. Hannaford.	Bedsteads, cutting screws in the posts and on the rails of.	17



*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3460	Cook, George W.....	Churns.....	1
3740	Cook, Roswell.....	Water-wheels.....	11
3778	Cooper, Isaac.....	Bedsteads, sacking-bottoms for.....	17
3439	Cope, S. and J. D.....	Bee-hives.....	1
3456	Cornell, Ezra.....	Cutting trenches and laying pipes.....	9
3449	Covel, Emerson G.....	Water-wheels, combined.....	11
3614	Cox, John.....	Tanning.....	16
3464	Cram, Smith.....	Pressing and raising weights, machines for.....	12
491	Crompton, William.....	Loom, figure power.....	3
3481	Cranage, Thomas.....	Boots, cutting.....	16
3867	Crawford, A. B.....	Hulling clover machines.....	1
3732	Crawford, Benjamin.....	Steam-engines, condenser and boilers of.....	6
3856	Cutter, Calvin.....	Trusses.....	20
3638	Cutting, James A.....	Bee-hives.....	1
3812	Darling, Eliakim C.....	Trusses.....	20
3697	Davenport, Charles, assignor to Davenport & Bridges.	Railroad truck-frames.....	9
3836	Davison, Clement.....	Stereotyping.....	18
3910	Davy, John T.....	Bakers.....	5
3788	Day, Horace H.....	India rubber goods corrugated and sherred.....	22
3822	Dennett, Daniel.....	Wind-wheels, horizontal.....	11
3598	Deutsch, Edward.....	Cements and pigments, water-proof.....	4
472	Dewey, David.....	Rake, horse.....	1
3537	Dodd, Robert J.....	Cupping instrument.....	20
3485	Dodge, J. Smith.....	Teeth, setting artificial.....	20
3632	Downey, Robert.....	Leather, making.....	16
5403	Doyen, J. Le.....	Compounds, disinfecting.....	4
3500	Draper, Francis.....	Lamp-caps.....	5
3559	Dubosq, Henry.....	Suspender buckles.....	21
3780	Dupuy, Eugene.....	Nursing-bottle.....	20
3709	Dyzert, William.....	Cultivators.....	1
3582	Eddy, R. H., assignor to D. Jarves and New England Glass Company.	Lamp-caps.....	5
3789	Ellis, Zabina.....	Tallow, &c., cutting.....	4
3695	Embree, James.....	Scythe-handles, &c., machine for making.....	14
3869	Ericsson, John.....	Propelling ships.....	7
3803	Esterly, George.....	Harvesting-machines.....	1
3506	Evans, David.....	Refrigerator.....	17
3518	Farrar, Alonzo.....	Reflectors, metallic.....	5
3544	Fatman, Joseph.....	Sealing-wax, igniting.....	4
4476	Ferguson, Robert, and John Clark.	Printing calico.....	18
3502	Ferguson, Hiram.....	Water-wheels.....	11
3591	Fernald, Henry B.....	Lamps.....	5
3693	Field, William.....	Rolling irregular figures to a pattern, machine for.....	2
3533	Fink, Julius.....	Ranges, kitchen.....	5
3828	Fish, Ezra.....	Sewing-machines.....	1
3790	Fish, Randal.....	Hats of leather, skins, and other mate- rials, machinery for forming.....	16
3823	Fitzgerald, Elisha.....	Braid, Tuscan, &c., weaving.....	3
4702	Fontaine de Marreau, Peter A. L.	Barometers.....	8
3428	Forsyth, William F.....	Doors, sliding.....	9
3751	Fowler, De Grasse.....	Pins, arranging and sticking in papers.....	2
3771	Francis, William, and William Johnson.	Marking and lettering packages, &c.....	18

*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3646	Fulkerson, Jacob D	Bee-hives	1
3626	Fulton, Calvin	Stoves, cooking	5
3800	Gale, Dan	Uterine injections, instrument for	20
3657	Gale, Isaiah	Boot-shanks, elastic	16
3503	Gardiner, Perry G	Presses, cotton	12
3534	Garrison, H. and G	Sugar candy	4
3581	Gathing, Richard I	Seed-planters	1
3826	Gilbert, Joseph	Chimneys, building	5
3716	Gilman, Alonzo	Printing-press	18
3715	Gilman, Eliphalet C	Laths and clapboards, sawing	14
3461	Goodyear, Charles	India rubber fabrics	22
3462	Goodyear, Charles	India rubber fabrics	22
3619	Gordon, James W. W	Ointment, mercurial, machine for making	4
3504	Gori, Ottoviano, and P. Ernst	Piano-fortes	18
3785	Gould, Ezra	Wool, combing	3
3453	Grandjean, Auguste	Composition for dyeing the hair	4
3658	Groat, Jacob	Grinding grain, cylindrical mill for	13
3659	Groat, Jacob	Hulling and pearling rice	1
3817	Groat, Jacob	Smut-machines	1
3564	Grout, John R	Drill or borer, governing the feed of	2
3496	Grout, John H., and F. M. Ray.	Plates, door	2
5028	Grouvelle, P. and L. N., and E. Mouchot, assignors to B. Rodriguez.	Ovens, bake	5
3794	Guernsey, Calvin O	Grain, fanning mill for	1
3473	Hager, Abraham	Sugar-boilers	4
3846	Haines, Alford C	Baths, vapor, apparatus for	20
3871	Hains, Samuel B	Horse-power for driving machinery	13
3480	Halsted, Oliver	Exercise, machines for producing	17
3664	Hamlin, Lemon	Bee palaces	1
3809	Hammond, Thomas	Bonnets, portable	3
3435	Harley, Benjamin F., and John D. Morris.	Hinges, butt, moulds for	2
3684	Harris, James S	Silk reels	3
3627	Hatch, George W	Carriages, wagons, &c., couplings for	10
3440	Hatch, Julius W	Buckles	2
3574	Hatfield, Jehu	Interest, machines for calculating	8
3505	Heck, John	Mill bush	13
3821	Hemingway, Daniel	Fireplaces	5
3538	Herbert, James	Ploughs for excavating ditches	1
3628	Hermance, John C	Stoves, cooking	5
3524	Herr, Samuel L	Grinding corn and cobs, mill for	13
3777	Hills, Dudley	Ploughs, gathering weeds under the furrow slice of.	1
3483	Hinton, Jacob H	Brooms, machine for making	17
3550	Hoe, Richard M	Inking-rollers	18
3551	Hoe, Richard M	Printing-presses	18
3687	Hoe, Richard M	Printing-press	18
3761	Holmes, James G	Invalids, chairs for	20
3735	Horn, Edwin B	Lamps, self-supplying	5
3413	Hoskins, Thomas H	Corn-planters	1
3447	Hotchkin, Ashley	Stoves, cooking	5
3431	Hovey, William	Straw-cutters	1
3649	Hubbell, William W	Fire-arms	19
3772	Hurd, Joseph	Sugar, cleaning	4
3854	Hurd, Joseph	Chimneys, caps for regulating the draught of	5
3673	Huse, Enoch	Tobacco, renovating	4



*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
389	Imlay, Richard	Supporting bodies of cars, &c.	8
3868	Isbister, Caleb	Nail-cutting machine, feeder for	2
3603	Isham, Henry	Tailors' measures	21
3403	Ives, Joseph Shaler	Piano-forte, tuning-pins for	18
3637	Jackson, Amos	Presses	12
3398	James, Aaron E	Bee-hives	1
3588	James, Henry B	Smut-machines	1
3642	Jenks, Jacob	Stone-cutters	15
3793	Jennings, Isaiah	Lamps, volatile, ingredients for burning	5
3866	Johnson, Edwin F	Steam-engines, locomotive	6
3701	Johnson, Israel G	Shingles, sawing	14
3585	Johnson, John, and O. Freeman, assignor to W. H. Tuttle.	Cracker-machines	17
3510	Johnson, Nelson	Water-wheels	11
3441	Jones, S. S.	Stoves, cooking	5
3750	Katen, Lewis	Block-letters, making	18
3713	Kaufman, David	Washing-machines	17
3728	Kendall, Thomas	Bonnet tips, apparatus for pressing	3
3682	Kenney, Cyrus	Hinges, butt blank, machinery for trimming.	2
3690	Kenney, Cyrus	Hinges, butt, of wrought iron, machinery for making.	2
3717	Kenney, Cyrus	Hinges, butt, of wrought iron, bending the knuckles of.	2
3758	Kephart, Peter	Fruit and vegetable preservers	17
3531	Kesselmeier, Frederick	Clock pendulums	8
3535	Kesselmeier, Frederick	Stoves, cooking	5
3442	Ketchum, Archibald C.	Potato-diggers	1
3831	Ketchum, William F	Reaping-machines	1
3848	Ketler, Adam	Stoves, cooking	5
3639	Kettering, Adam, and A. Vogle	Tanning	16
3870	Kilburn, W., and F. Haines	Seed-planters	1
3792	Kingman, Henry W.	Bedsteads, bureau	17
3671	Kymer, John	Furnace grate bars	5
3489	Lamb, Seth	Presses, cotton	12
3511	Lane, Isaac C	Loom, rotary temples for	3
3662	Lawrence, Henry	Buckles	2
3748	Lauve, Norbert	Ratan and cane cutters	1
3719	Law, Hervey	Match-splints, cutting	14
3448	Lear, P., and E. Buck, assignors to P. Lear.	Paddle-wheels, horizontal	7
3526	Leland, Abner	Stoves, cooking	5
3426	Lester, Ebenezer A	Steam-engines, vibrating	6
3700	Lester, Ebenezer A	Wheels, cast iron railroad-car, making	10
3753	Lewis, James	Stoves, cooking	5
3692	Lewis, Winslow, sr., and Benjamin Hemmenway.	Lamps, light-house	5
3714	Ling, Thomas	Churns	1
3736	Locke, Edward	Steam-engine, rotary, exhausting the case of a.	6
3465	Long, Israel	Ploughs, wheel	1
3459	Loper, Richard F	Propeller, rotary inclined, for vessels	7
3685	Loper, Richard F	Guns, constructing large	19
3786	Loper, Richard F	Propellers, submerged, coupling the shafts of, for steamboats and other vessels.	7
3427	Loring, Thomas	Hinges, flask for moulding	2
4540	Low, Charles	Steel and iron, manufacture of	2
3472	Lukins, Ephraim	Washing-machines	17

*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3602	Lyman, Eldridge .....	Tenoning and mortising machines.....	14
3830	Lyon, James H.....	Stoves, cooking.....	5
3652	Madden, John .....	Carriages, detaching horses from .....	10
3851	Maguire, John .....	Flats, manufacture of.....	3
3407	Mallory, Meredith .....	Smut-machines.....	1
3842	Maples, Darius W. ....	Lock, permutation, for vaults, safes, &c..	2
3743	Marshall, William, and J. B. Thursly.	Hides, raw, machine for cutting .....	16
3840	Martin, John, jr.....	Presses, cheese, self-acting .....	12
3494	Mayo, John K.....	Saws, circular, for sawing lumber, &c., manner of applying.	14
3540	McAll, William.....	Corn-shellers.....	1
3615	McCauley, William L.....	Boots, cork-sole .....	16
3578	McCollum, James.....	Carriages, wrought-iron wheels for.....	10
3801	McCully, Francis, jr.....	Bobbins, method of operating the, in machinery for spinning fibrous substances.	3
3437	McDonough, Thomas.....	Steam-engines, conical balance valves of.	6
3478	McWilliams, Alexander .....	Fruit-gatherers .....	1
3477	Merritt, Caleb.....	Bonnets and hats, machinery for pressing.	3
3412	Miller, John .....	Saw-mills, tail-blocks of.....	14
3775	Miller, Rudolph.....	Corn-fodder, cutting and crushing.....	1
3570	Mills, Peter.....	Stoves, cooking .....	5
3824	Mini, G.....	Lampblack, making.....	4
3452	Montgomery, William.....	Hemp, &c., heckling and spinning .....	3
3745	Moody, R., and S. D. Dakin.....	Dock, floating dry, basin to be used in connexion with a.	9
3644	Mooers, Jonathan .....	Ploughs.....	1
3490	Moor, Albert .....	Harpoon .....	7
3396	Moore, George R.....	Balances .....	12
3414	Moreau, Gabriel H.....	Propelling steam and other vessels.....	7
3415	Moreau, Gabriel H.....	Steam-generators.....	6
3746	Morewood, Edmund P.....	Iron and copper, coating, with tin and other metals.	2
3609	Morgan, Amos .....	Drilling-machines .....	2
3675	Morgan, Morgan, jr.....	Fire-fenders .....	5
3565	Morris, Edmund.....	Plates, door, and signs, of separate types, &c., method of making.	2
3738	Morris, Edmund.....	Paper, sand, glass, or emery, making.....	3
3516	Mumford, Silas G. ....	Cotton, wool, &c., burring and cleaning.	3
3514	Myers, Gideon .....	Composition for aqueduct pipes.....	4
3560	Naylor, Peter .....	Roofs of houses, &c., securing tin plate, &c., on.	9
3406	Nelson, Robert.....	Cultivators .....	1
3549	Newbrough, William.....	Washing-machines.....	17
3747	Newell, Robert.....	Lock, combination, for doors, safes, &c..	2
3479	Nichols, Eli B., and D. Marsh.	Grinding grain, mills for.....	13
3865	Nicolls, Gustavus A.....	Railroads, safety-switch for.....	9
3668	Nicolson, Samuel.....	Ice-breaker for boats and other vessels..	7
3599	Nield, James.....	Looms, power.....	3
3486	North, Oren S.....	Labels for mail-bags .....	2
3563	Noyes, Isaac.....	Salt making .....	4
3757	Owens, Edwin.....	Ditching machines.....	9
3832	Packard, M and C. B.....	Grain, separating, from straw .....	1
3705	Pagin, John .....	Smut-machines.....	1
3463	Palmer, Moses .....	Wheel-hubs, lining metallic boxes for..	10
3678	Palmer, Waterman B.....	Logs, setting saw.....	16
3847	Parish, Nathan.....	Washing-machines.....	17



*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3825	Park, Jesse K.-----	Manifold letter-writers-----	18
3443	Parker, E. and T.-----	Composition for glazing-----	4
3629	Parker, Joseph J.-----	Saw-mills, tail and head blocks of, self-setting.	14
3482	Partridge, Benoni F.-----	Rakes, grain-----	1
3429	Peas, Abram-----	Steam-engine, rotary-----	6
3466	Peck, George-----	Presses, cotton-----	12
3721	Peck, Jacob-----	Corn and cane cutters-----	1
3670	Peck, Lauren M.-----	Vise, standing or bench-----	14
3.97	Perry, Stuart-----	Gases or vapors, engine to be operated by the explosive mixtures of inflammable.	6
3762	Peters, William T., executor of Ithiel Town.	Bricks, moulding-----	15
3433	Pettes, Simon-----	Stoves, cooking-----	5
3991	Pfisher, D., assignor to John Keller.	Stone, sawing and dressing-----	15
7269	Phillips, W. H.-----	Fire, apparatus for extinguishing-----	5
4124	Pilbrow, James-----	Railroads, atmospheric-----	10
3509	Pittenger, William-----	Cutters, sausage-meat-----	17
542	Fitts, J. A. and H. A.-----	Threshing and cleaning grain-----	1
3859	Post, Lewis-----	Fracture apparatus-----	20
3634	Post, Nathan-----	Hames, horse-----	16
3408	Potter, B. and A. F.-----	Lathe for turning boats' oars-----	14
3861	Potter, William L.-----	Stoves, cooking-----	5
3562	Pratt, Loea-----	Seed-planters-----	1
3815	Prescott, Jedediah-----	Presses, cotton-----	12
3739	Provost, William F.-----	Presses, cotton-----	12
3703	Putney, David-----	Water-wheels-----	11
3457	Quail, John H.-----	Cars, railroad, for turning curves-----	10
3694	Rand, John-----	Vessels of soft metal, method of making-----	2
3595	Reid, Elisha-----	Journals, preventing, from heating-----	13
3760	Reinhardt, C. C., and V. Carter.	Trusses-----	20
3607	Reynolds, Griffin, jr.-----	Hemp cradles-----	1
3653	Reynolds, John-----	Carriage-bodies, hanging-----	10
3841	Reynolds, Oliver-----	Bee-hives-----	1
3425	Reynolds, R., jr.-----	Gin, cotton, roller-----	3
3681	Reynolds, S. G.-----	Spike-machines-----	2
3589	Rice, Dennis-----	Harrows, sward-cutting-----	1
3857	Richards, Richard-----	Soles, cutting-----	16
3522	Richardson, Samuel S.-----	Fitting ladies' dresses-----	21
3643	Ricketts, Lovering-----	Piano-fortes-----	18
3807	Riggs, John W.-----	Stoves, cooking-----	5
3417	Riley, William W.-----	Ointments for piles-----	4
3779	Ringgold, Samuel-----	Saddles, construction of-----	16
3724	Ripley, Ezra-----	Metal, method of making patterns for casting hollow ware and other articles of.	2
4189	Ritterbrant, Louis Antoine-----	Boiler, steam, removing incrustation of-----	6
3796	Robbins, Zenas C.-----	Boilers, steam, &c., heater of-----	6
3804	Robinson, J. D.-----	Water-wheels-----	11
3555	Robinson, Peter-----	Steam-engine and other boilers, supplying air to consume the combustible gases, &c., that escape from the furnace of.	6
3672	Rodgers, James-----	Sewing with a running stitch, machine for.	16
3810	Roe, Livingston-----	Fractures, apparatus for-----	20
3349	Rogers, Calvin B.-----	Saws, machinery for filing-----	14

*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3765	Rogers, Henry J. ....	Telegraph signal .....	9
3401	Roome, William J. ....	Composition for leather, water-proof....	4
3575	Roop, Benjamin .....	Mash-tubs .....	4
3726	Rose, William .....	Wood, shaving .....	14
3727	Rose, William .....	Hoops, splitting .....	14
3590	Ross, Charles .....	Rules or measures for boards, leather, &c.	8
3816	Ross, John G. ....	Wheels, tide .....	13
4226	Rowan, William, assignor to Thomas Murray Megget.	Boxes, anti-friction, for axles, &c. ....	10
3749	Rowland, Daniel .....	Coffee-pots .....	17
3783	Roys, Franklin .....	Bread, knife for cutting .....	17
3776	Russell, Thomas J. ....	Boring timber, machine for .....	14
3467	Rust, Samuel .....	Lamp-wicks, raising .....	5
3498	Sabins, David .....	Trusses .....	20
3446	Sanderson, Robert .....	Pressing, lever-powers for .....	12
3838	Sanford, Levi .....	Planes, bench, setting the bit in .....	14
3686	Savage, E., and S. North .....	Fire-arms .....	19
3512	Savage, Elisha C. ....	Hooks and eyes .....	20
3768	Sawyer, Nathan .....	Brick-presses .....	15
3806	Saxton, J., and G. Elliott, as- signors to Harned & Elliott.	Stoves, air-tight, self-regulating .....	5
3532	Scammon, Samuel, and R. Nason	Smut-machines .....	1
3616	Schermerhorn, J. B. ....	Churns .....	1
3725	Sealy, Richard .....	Hydro-pneumatic apparatus for raising beer, &c., from casks.	11
3594	Sebo, John .....	Awnings .....	22
3475	Sellers, C. and G. E. ....	Pipes, lead, machinery for manufacture of	2
3631	Sewell, William, jr. ....	Presses, cotton .....	12
3580	Shailer, Thomas .....	Trap for catching animals .....	22
3568	Sherard, John H. ....	Ginning cotton, saw-gin for .....	3
3536	Shnell, James S. ....	Carriages, disengaging horses from .....	10
3802	Sickels, Frederick E. ....	Steam-engines, opening and closing the valves of.	6
3845	Sickels, Gerard, assignor to G. L. F. Griswold.	Bedsteads, sofa .....	17
8988	Siever, Robert W. ....	Looms for weaving piled fabrics without the figuring wires.	3
3892	Slane, P. F., and John Golding	Lamps, glass, making .....	5
3574	Slater, Joseph R., and S. G. Pratt.	Hames, horse .....	16
3515	Smart, John .....	Stoves .....	5
3720	Smedley, Jeffery .....	Brick-presses .....	15
3576	Smith, Aaron .....	Ploughs .....	1
3579	Smith, Aaron .....	Ploughs, double .....	1
3404	Smith, David .....	Pressing, machines for preparing tobacco for.	12
3773	Smith, Elisha .....	Friction-matches .....	4
3718	Smith, Joseph .....	Excavator, scoop, or dredging-machine	9
3621	Smith, William H. ....	Cements, making .....	4
3569	Snyder, Elisha S. ....	Smut-machines .....	1
3586	Soule, William .....	Washing-machines .....	17
3742	Southall, Thomas, and Charles Crudgington.	Iron and steel, process of manufac- turing, &c.	2
3635	Spicker, Charles F. ....	Coloring and hardening wood .....	4
3729	Sprout, Erastus T. ....	Carriages, spring-brace for .....	10
3787	Squier, John B. ....	Saw-mill, setting logs on the carriage of a.	14
3829	Stanley, William .....	Wheat-fans .....	1



*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3669	Stanton, Henry-----	Saw-mill carriages, for steadying the logs thereon.	14
3808	Stearns, Nathaniel P.-----	Saw-mills, setting saw-logs and opening and shutting gates of.	14
3543	Stephenson, Marcus R., and O. Edwards.	Lock, door, combination-----	2
3546	Stephenson, Marcus R., and O. Edwards.	Locks for banks, safes, vaults, &c-----	2
3651	Stephenson, Marcus R., and O. Edwards; Marcus R. Stephenson, assignor to Edwin Holman.	Locks for banks, safes, &c-----	2
3667	Stetson, Francis M., and John Eaton.	Saw-mills, setting logs on the carriages of.	14
3862	Stevens, John H.-----	Boxes, machinery for preparing wood for making.	14
3666	Stevens, Pelatiah, jr-----	Boot-crimps-----	14
3553	Stevens, Phineas-----	Spinning, flier and dead-spindle for---	3
3863	Stickney, Gage-----	Hinges, butt, planing and dressing the knuckles on their inner sides.	2
3858	Stigleman, Calvin, and A. Seely.	Saws of saw-mills without a gate, straining the.	14
3764	Stiles, A. C.-----	Chairs, rocking-----	17
3567	Stimpson, Albert-----	Water-wheels-----	11
3587	Stimpson, H. H.-----	Ranges, cooking-----	5
3592	Straub, Abraham-----	Smut-machines-----	1
3612	Straub, Isaac-----	Stoves, cooking-----	5
3620	Stuart, Frederick A.-----	Threshing-machines-----	1
3647	Stuart, Frederick A.-----	Forges, blacksmiths'-----	2
3604	Stutton, Samuel G.-----	Scrapers for repairing and making roads, &c.	9
4277	Tatham, I., and D. Cheetham.	Roving in cars, mode of laying-----	3
3864	Taylor, Anthony-----	Ploughs-----	1
3791	Taylor, Eliakim-----	Straw-cutters-----	1
3811	Taylor, Ezra-----	Straw-cutters-----	1
3418	Taylor, John-----	Anvils, machine for making-----	2
3593	Taylor, Samuel-----	Brushes, trimming the bristles of, &c---	17
3411	Theaker, Thomas C.-----	Saw-mills, tail and head blocks of-----	14
3501	Thompson, Ambrose W.-----	Ranges, kitchen-----	5
3542	Thompson, John-----	Ploughs-----	1
3650	Thorndike, John H.-----	Pipes, supply, construction of, for aqueducts.	11
3766	Thorp, John-----	Hook-spinner and twister, whirling and rotary ring.	3
3545	Tillman, Samuel D.-----	Stoves, apparatus for regulating the heat of.	5
3763	Timby, Theodore R.-----	Water-wheels-----	11
300	Titcomb, E. M.-----	Spinning woollen roving-----	2
3513	Tobin, John-----	Lamp, lard-----	5
3450	Tolles, Elisha-----	Cars, railroad, to prevent accidents from what are called "snake-heads."	10
3850	Tower, Jonas-----	Iron or other ores, process of reducing, to the metallic state by coating them with certain fluxes.	2
3756	Trail, Archibald-----	Ships and other vessels, strengthening the sails of.	7
3805	Tucker, Edwin-----	Turning irregular forms, machinery for--	14
5261	Turnbull, Alexander-----	Tanning-----	16
3622	Twitchell, Mark-----	Brick-presses-----	15

*Persons whose patents for inventions have expired.*

No.	Patentee.	Invention or discovery.	Class.
3782	Henry G. Tyer & John Helm..	India rubber, maching for cutting ..	22
3855	Valentine, Samuel L.....	Water-wheels.....	11
3487	Varnel, Reuben C .....	Cloth, brushing and winding.....	3
3818	Vermillion, Dennis.....	Excavator or drag for removing mud, &c., in beds of rivers.	
3471	Verplank, Isaac B.....	Buckles.....	
3708	Vestal, Aaron H.....	Potatoes, keeping sweet.....	17
3458	Vine, William.....	Cutlery, cleaning and polishing.....	2
3606	Von Schmidt, Peter.....	Propellers, submerged.....	7
3601	Wade, Robert M.....	Mill bush.....	13
3655	Wager, James.....	Stoves, cooking.....	5
3623	Walker, George.....	Furnaces for heating buildings.....	5
3436	Walker, Rd., and J. McIntire..	Loom, knitting.....	3
3434	Walters, George T.....	Grinding-mills.....	13
3528	Ward, Hammond.....	Stone, dressing.....	15
3491	Waring, George E.....	Furnaces, portable.....	5
3759	Waste, Oramel W.....	Chronometer escapement.....	8
3423	Watkins, David.....	Wheat-fans.....	1
3625	Weaver, Daniel.....	Water-wheels.....	11
3577	Webb, Benjamin.....	Saw-mill carriages, self-setting appa- tus for setting logs on.	14
3617	Webster, James W.....	Smut-machines.....	1
3420	Wiseman, Joseph.....	Paints, fire and water-proof .....	4
3663	Wemple, Jacob V. A., and G. Westinghouse.	Grain-separators.....	1
3781	West, Christopher.....	Lamps, construction of.....	5
3554	West, George R.....	Bee-hives.....	1
3624	White, James.....	Stoves.....	5
3497	Whitman, L. and Ezra, jr....	Threshing-machines.....	1
3795	Whiton, Lyman.....	Stays for supporting spine of the human body.	20
3860	Wieting, Archibald.....	Stoves, cooking.....	5
3654	Wight, Oliver B.....	Washing-machines.....	17
3706	Wilkinson, Thomas.....	Currycombs.....	2
3797	Wilson, Alexander M.....	Streets, machine for sweeping.....	9
3784	Wilson, Ebenezer.....	Lard, rendering.....	4
3839	Wilson, William.....	Latch, mortise, for doors.....	2
3583	Wiszt, John A.....	Water and animal power .....	11
3529	Wolfe, T. Jefferson.....	Pumps.....	11
3405	Wood, Simeon.....	Shingles, shaving.....	14
3495	Wood, William.....	Shingles, cutting.....	14
3814	Wood, William A., and J. C. Loveland.	Grain-cradles.....	1
4691	Woodcock, Bancroft .....	Stoves, cooking.....	5
233	Woodcock, Bancroft .....	Plough, improvement in.....	1
4441	Woodcroft, Bennett.....	Propellers, spiral.....	7
3520	Woodward, Lewis.....	Washing-machines.....	17
3492	Woolley, John.....	Stoves, air-heating and cooking.....	5
3507	Woolley, John.....	Roofs of houses, &c., manner of making.	9
3424	Worthington, H. R.....	Propelling canal and other boats.....	7
3677	Worthington, H. R.....	Steam-engine, auxiliary, constructing and governing an, for the purpose of supplying a steam-boiler with water.	6
3835	Wright, Peter M.....	Presses, cotton.....	12
3517	Wyeth, Nathaniel J.....	Composition for making brick .....	4
3630	Yale, Linus.....	Locks, door.....	2
3610	Young, E. W., & T. H. Wilson.	Smut-machines.....	1
3430	Young, Jas., & Elmon Parker..	Stoves, cooking.....	5



## ALPHABETICAL LIST OF PERSONS WHOSE PATENTS FOR DESIGNS HAVE EXPIRED DURING THE YEAR 1858.

No.	Patentees.	Designs.
368	Abendroth, John .....	Stoves, cooking.
362	Ames, Winslow, assignor to Hartshorn & Ames .....	Grates, parlor.
429	Ames, W., assignor to J. Hartshorn & W. Ames .....	Stoves.
367	Arnold, Dutee .....	Stoves, cooking.
369	Ball, Thomas .....	Bust of Jenny Lind.
372	Batchelor, Nathaniel A .....	Clock frame.
401	Blanchard, Reuben, jr., assignor to Learned & Thatcher ..	Stoves.
402	Blanchard, Reuben, jr., assignor to Learned & Thatcher ..	Stoves.
403	Blanchard, Reuben, jr., assignor to Learned & Thatcher ..	Stoves.
370	Burleigh, M. C .....	Stove doors and panels.
392	Burnet, William .....	Water coolers.
415	Chapin, Nathan .....	Tables.
352	Chilson, Gardner .....	Furnace registers.
353	Chilson, Gardner .....	Furnace registers.
354	Chilson, Gardner .....	Furnace registers.
355	Chilson, Gardner .....	Furnace registers.
417	Cobb, Lyman .....	Stoves.
405	Cook, Aaron .....	Combs for ladies.
382	Cox, A., E. Johnson, and D. B. Cox .....	Stoves.
383	Cox, A., E. Johnson, and D. B. Cox .....	Stoves.
341	Davis, William C .....	Stoves, cook.
390	Davis, William C .....	Stoves.
419	Davy, John T .....	Fences, cast iron.
350	Delany, Edward J., assignor to Heins & Adamson .....	Umbrella stands.
393	Dewitt, James V .....	Stoves.
423	Fitzgerald, Frederick, assignor to Silas C. Herring and John Ryer.	Iron railing.
400	Flinchbaugh, H. K. ....	Tomb, cast iron.
430	Freeman, Edmund L .....	Presses, mantle-pieces, &c., for frames for.
406	Fulton, Calvin .....	Stove plates.
345	Gibbs, Samuel W., assignor to North, Harrison & Co .....	Stoves.
346	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry ..	Stoves, cooking.
356	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry ..	Stoves.
357	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry ..	Stoves.
359	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry ..	Stoves.
3	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry ..	Stoves.
380	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry ..	Stoves.
394	Gibbs, Samuel W., assignor to North, Harrison & Chase ..	Stoves.
422	Gibbs, Samuel W., assignor to North, Harrison & Chase ..	Stoves.
342	Gilbert, Charles .....	Stoves.
428	Green, Jeremiah D., assignor to Backus, Bacon & Co. ....	Stoves.
381	Hallman, W. G. ....	Stoves.
378	Hapgood, Lyman S. ....	Stove plates.
347	Harris, Conrad, and Paul W. Zoiner .....	Stoves.
375	Hathaway, William L .....	Stoves.
348	House, Samuel A .....	Stoves, cooking.
349	House, Samuel A .....	Stoves, parlor.
388	House, Samuel A .....	Stoves.
371	Hutchinson, James, assignor to D., A. E., and N. Powers ..	Floor oil-cloth.
411	Hutchinson, James, assignor to Deborah, Albert E., and N. B. Powers.	Floor oil-cloth.
374	Hutton, P. M. ....	Bedsteads.
407	Hutton, Pelatiah M .....	Bedsteads, cast iron
408	Jones, Anthony W., assignor to James McGregor, jr .....	Stoves.
344	Lamb, Joseph G .....	Stoves.
380	Lamb, Joseph G .....	Stoves.

*Persons whose patents for designs have expired.*

No.	Patentees.	Designs.
387	Lamb, Joseph G -----	Stoves.
360	Lewis, W. and W. H -----	Pedestals and columns.
410	Merchant, Silas -----	Stoves.
425	Muller, Charles -----	Hat stand.
397	Penniman, Elijah P -----	Stove plates.
398	Penniman, Elijah P -----	Stove plates.
414	Penniman, E. P., assignor to H. Ruttan -----	Stove or furnace for ventilating.
358	Perry, John S -----	Stoves.
361	Pratt, Joseph -----	Grates, parlor.
391	Pratt, Joseph -----	Stoves, parlor.
384	Rathbone, John F -----	Stoves.
389	Rathbone, John F -----	Stoves, cooking.
395	Rathbone, John F -----	Stoves, cooking.
396	Rathbone, John F -----	Stoves, plates of Franklin.
363	Richardson, N. P -----	Stoves, air-tight.
376	Richardson, N. P -----	Stoves.
399	Richmond, Apollos, assignor to A. C. Barstow & Co -----	Stoves, parlor, plates of.
424	Richmond, Apollos, assignor to A. C. Barstow & Co -----	Stove plates, parlor.
416	Ripley, Ezra -----	Stove fronts.
377	Ripley, Ezra, assignor to D. Stafford & Co -----	Stoves.
421	Ripley, Ezra, assignor to Chollar, Sage, & Dunham -----	Stove.
426	Ripley, Ezra, and N. S. Vedder, assignor to Low & Hicks -----	Stove, parlor.
351	Sailor, S. H., assignor to Warnick, Leibrandt, & Co -----	Stoves, cooking.
409	Sailor, Samuel H., assignor to North, Harrison, & Chase -----	Stoves.
379	Sanderson, William L., assignor to R. R. Finch -----	Stoves.
420	Savery, William -----	Stoves.
364	Schultz, Frederick -----	Stoves, air-tight.
343	Smith, Elihu -----	Stoves.
385	Stuart, David, and Jacob Beesley, assignors to William P. Cresson. -----	Stoves.
427	Stuart, David, and Jacob Beesley, assignors to William P. Cresson. -----	Stove registers.
404	Vedder, N. S, assignor to A. T. Dunham & Co -----	Stoves.
373	Wager, James, David Pratt, and Volney Richmond -----	Stoves.
413	Weeman, Ebenezer -----	Gates, metallic.
365	Williams, Seth, jr., assignor to Williams, Bird & Co -----	Stoves.
418	Woolson, Charles J -----	Stoves.
412	Zeuner, Charles, assignor to M. Greenwood & Co -----	Shovels, stands for.



## CLASSIFIED LIST OF PATENTS FOR INVENTIONS AND DISCOVERIES THAT HAVE EXPIRED DURING THE YEAR 1858.

## CLASS I.—AGRICULTURE, including instruments and operations.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bee-hives.....	Aaron E. James.....	Point Pleasant, Va.....	Jan. 6, 1844.
Bee-hives.....	S. and J. D. Cope.....	Damascusville, Ohio.....	Feb. 12, 1844.
Bee-hives.....	George R. West.....	Fairfield, Ohio.....	April 20, 1844.
Bee-hives.....	James A. Cutting.....	Haverhill, N. H.....	June 24, 1844.
Bee-hives.....	J. D. Fulkerson.....	Unity, Ohio.....	July 1, 1844.
Bee-hives.....	Oliver Reynolds.....	Webster, N. Y.....	Dec. 4, 1844.
Bee-hives.....	Lemon Hamlin.....	Kirkersville, Ohio.....	July 13, 1844.
Bee-palaces.....	George W. Cook.....	St. Louis, Mo.....	Feb. 28, 1844.
Churns.....	Harness Bentley.....	Ballston, N. Y.....	April 20, 1844.
Churns.....	J. B. Schermerhorn.....	New York, N. Y.....	June 5, 1844.
Churns.....	Thomas Ling.....	Portland, Me.....	Aug. 21, 1844.
Churns.....	Jacob Peck.....	Oakland, Tenn.....	Aug. 28, 1844.
Corn and cane-cutters.....	Rudolph Miller.....	York, Penn.....	Oct. 3, 1844.
Corn-fodder, cutting and crushing.....	William McAll.....	Talladega, Ala.....	April 13, 1844.
Corn-shellers.....	Robert Nelson.....	West Point, Ind.....	Jan. 15, 1844.
Cultivators.....	William Dyzert.....	Gettysburg, Penn.....	Aug. 16, 1844.
Cultivators.....	James Birdsell.....	Hamorton, Penn.....	Nov. 9, 1844.
Cultivator-teeth.....	Alexander McWilliams.....	Washington, D. C.....	Mar. 13, 1844.
Fruit-gatherers.....	William A. Wood and John C. Loveland.....	Hoosick Falls, N. Y.....	Nov. 13, 1844; antedated Nov. 9, 1844.
Grain-cradles.....	C. O. Guernsey.....	Russia, N. Y.....	Oct. 12, 1844.
Grain, fanning-mill for cleaning.....	M. and C. B. Packard.....	Clarendon, N. Y.....	Nov. 18, 1844.
Grain, separating, from straw.....	J. V. A. Wemple and George Westinghouse.....	Mohawk, N. Y.....	July 13, 1844.
Grain-separators.....	Dennis Rue.....	Rowe, Mass.....	May 17, 1844.
Harrows, sward cutting.....	George Easterly.....	Heart Prairie, Wis.....	Oct. 22, 1844.
Harvesting-machines.....	Griffin Reynolds, jr.....	Washington, Ky.....	May 30, 1844.
Hemp-cradles.....	Jacob Groat.....	Troy, N. Y.....	July 11, 1844.
Hulling and pearling rice.....	A. B. Crawford.....	Wooster, Ohio.....	Dec. 31, 1844.
Hulling clover machines.....	Bancroft Woodcock.....	Mount Pleasant, Penn.....	June 14, 1837.
Plough.....	John Thompson.....	Ripley, Ohio.....	April 17, 1844.
Ploughs.....			

Ploughs.....	Aaron Smith.....	Bloomfield, Mich.....	May 6, 1844.
Ploughs.....	J. Mooers.....	Hazelton, Penn.....	July 1, 1844.
Ploughs.....	Anthony Taylor.....	New Garden, Ohio.....	Dec. 19, 1844.
Ploughs, adjusting.....	William K. Allen.....	Brownsboro', Ky.....	Jan. 31, 1844.
Ploughs, combined.....	Harvey Brown.....	Payson, Ill.....	Mar. 9, 1844.
Ploughs, double.....	Aaron Smith.....	Bloomfield, Mich.....	May 10, 1844.
Ploughs, for excavating ditches.....	James Herbert.....	Lagrange, Ind.....	April 13, 1844.
Ploughs, gathering weeds under the furrow slice of.....	Dudley Hills.....	East Hartford, Conn.....	Oct. 7, 1844.
Ploughs, wheel.....	Israel Long.....	Bucyrus, Ohio.....	Mar. 9, 1844.
Potato-diggers.....	Archibald C. Ketchum.....	Schenectady, N. Y.....	Feb. 20, 1844.
Rake, horse.....	David Dewey.....	Poultney, Vt.....	Nov. 23, 1837.
Rakes, grain.....	Benoni F. Partridge.....	Onondaga, N. Y.....	Mar. 13, 1844.
Ratoon and cane cutters.....	Norbert Laure.....	Plaquemines, La.....	Sept. 17, 1844.
Reaping-machines.....	William J. Ketchum.....	Buffalo, N. Y.....	Nov. 18, 1844.
Seeding; corn-planters.....	Thomas H. Hoskings.....	Crawfordsville, Ind.....	Jan. 20, 1844.
Seeding; planting-machines.....	Dierck Breuer.....	Petersburg, Tenn.....	April 4, 1844.
Seeding; seed-planters.....	Loca Pratt.....	Amherst, N. H.....	April 25, 1844.
Seeding; seed-planters.....	Richard J. Gatling.....	Murfreesborough, N. C.....	May 10, 1844.
Seeding; seed-planters.....	W. Kilburn and.....	Lawrenceville, Penn.....	Dec. 31, 1844.
Seeding; seed-planters.....	F. Haines.....	Marietta, Penn.....	Nov. 18, 1844.
Seeding; sowing-machines.....	Ezra Fisk.....	Fayette, Maine.....	
Smut-machines.....	Meredith Mollory.....	Mount Morris, N. Y.....	Jan. 20, 1844.
Smut-machines.....	Jacob W. Brower.....	Mount Airy, N. C.....	Feb. 28, 1844.
Smut-machines.....	James M. Clarke.....	Strasburg, Penn.....	Mar. 20, 1844.
Smut-machines.....	S. Scammon and R. Nason.....	Waterville, Me.....	April 10, 1844.
Smut-machines.....	Elisha S. Snyder.....	Charlestown, Va.....	April 30, 1844.
Smut-machines.....	Henry B. James.....	Mount Holly, N. J.....	May 17, 1844.
Smut-machines.....	Abraham Straub.....	Milton, Penn.....	May 17, 1844.
Smut-machines.....	Elisha W. Young and.....	Parkman, Ohio.....	June 5, 1844.
Smut-machines.....	Thomas H. Wilson.....	Harrisburg, Penn.....	
Smut-machines.....	James W. Webster.....	Luray, Va.....	June 5, 1844.
Smut-machines.....	John Pagin.....	Michigan City, Ind.....	Aug. 14, 1844.
Smut-machines.....	Jacob Groat.....	Troy, N. Y.....	Nov. 9, 1844.
Straw-cutters.....	William Hovey.....	Worcester, Mass.....	Feb. 12, 1844.
Straw-cutters.....	Eliakim Taylor.....	Rochester, N. Y.....	Oct. 12, 1844.
Straw-cutters.....	Ezra Taylor.....	Rochester, N. Y.....	Nov. 6, 1844.
Threshing and cleaning grain.....	J. A. and H. A. Pitts.....	Winthrop, Me.....	Dec. 29, 1837; antedated

June 29, 1837.



Expired patents for inventions—CLASS I.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Threshing-machines -----	L. and E. Whitman, jr.-----	Winthrop, Me.-----	Mar. 20, 1844.
Threshing-machines -----	Charles W. Cathcart-----	New Durham, Ind.-----	April 25, 1844.
Threshing-machines -----	Frederick A. Stuart.-----	Catharine, N. Y.-----	June 5, 1844.
Wheat-fans -----	David Watkins -----	Port Republic, Va.-----	Feb. 2, 1844.
Wheat-fans -----	William Stanley -----	Jamestown, N. C.-----	Nov. 18, 1844.
Winnowing-machines -----	Thomas Cole and John Littlefield-----	Allensville, Ind.-----	Aug. 7, 1844.
Winnowing-machines -----	Thomas Chandler and-----	Illinois -----	Dec. 7, 1844.
Winnowing-machines -----	Asa D. Reed -----	Michigan -----	

CLASS II.—METALLURGY, and manufacture of metals and instruments therefor.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Anvils, machine for making-----	John Taylor-----	Shadegap, Penn.-----	Jan. 31, 1844.
Bolt in door-fastenings, operating the-----	Albert Bingham-----	Boston, Mass.-----	June 5, 1844.
Buckles -----	Julius W. Hatch -----	Manlius, N. Y.-----	Feb. 20, 1844.
Buckles -----	Isaac B. Verplank -----	Mentz, N. Y.-----	Mar. 9, 1844.
Buckles -----	Henry Laurence-----	Manlius, N. Y.-----	July 13, 1844.
Currycombs -----	Thomas Wilkinson-----	Cambridge, N. Y.-----	Aug. 16, 1844.
Cutlery, cleaning and polishing -----	William Vine-----	New York, N. Y.-----	Feb. 28, 1844.
Drill or borer, governing the feed of -----	John R. Grout-----	Birmingham, Mich.-----	April 25, 1844.
Drilling-machines -----	Amos Morgan -----	Wooster, Ohio -----	May 30, 1844.
Forges, blacksmith's-----	Frederick A. Stuart-----	Catharine, N. Y.-----	July 1, 1844.
Furnace, reverberatory, for smelting or puddling iron.	S. Broadmeadow, assignor to William Green.	Woodbridge, N. J.-----	Jan. 20, 1844.
Furnaces for smelting iron-----	Leman Bradley -----	Sharon, Conn.-----	Nov. 18, 1844.
Hinges, butt-blank, machinery for trimming-----	Cyrus Kenney -----	Troy, N. Y.-----	July 26, 1844.
Hinges, butt, moulds for-----	Benjamin F. Harley and John D. Morris-----	Philadelphia, Penn.-----	Feb. 12, 1844.
Hinges, butt, of wrought iron, bending the knuckles.	Cyrus Kenney -----	Troy, N. Y.-----	Aug. 23, 1844.

Hinges, butt, of wrought iron, machinery for making.	Cyrus Kenney -----	Troy, N. Y. -----	Aug. 7, 1844.
Hinges, butt, planing and dressing the knuckles on their inner sides.	Gage Stickney -----	Blackwoodtown, N. J. -----	Dec. 19, 1844.
Hinges, flask for moulding.	Thomas Loring -----	Gloucester, N. J. -----	Feb. 7, 1844.
Iron and copper, coating with tin and other metals.	Edmund P. Morewood -----	New York, N. Y. -----	Sept. 17, 1844.
Iron or other ores, process of reducing to the metallic state, by coating them with certain fluxes.	Jonas Tower -----	Madison, Ohio -----	Dec. 7, 1844.
Iron and steel, process of manufacturing, &c.	Thomas Southall and Charles Crudginton. -----	Kidderminster, Eng. -----	Sept. 14, 1844; antedated Feb. 1844.
Iron, wrought, mode of obtaining directly from the ore.	Simeon Broadmeadow -----	New York, N. Y. -----	May 30, 1844.
Labels for mail-bags	Oren S. North -----	New Britain, Conn. -----	Mar. 13, 1844.
Latch, mortise, for doors	William Wilson -----	Northampton, Mass. -----	Nov. 26, 1844.
Laths, metallic, for fire-proof ceilings of houses.	Palmer Sumner -----	New York, N. Y. -----	April 25, 1844.
Lock, combination	Sabin Colton -----	Philadelphia, Penn. -----	Jan. 6, 1844.
Lock, combination, door	M. R. Stephenson and Oliver Edwards -----	Boston, Mass. -----	April 17, 1844.
Lock, combination, for doors, safes, &c.	Robert Newell -----	New York, N. Y. -----	Sept. 17, 1844.
Lock, permutation, for vaults, safes, &c.	Darius W. Maples -----	Geneva, N. Y. -----	Dec. 4, 1844.
Locks for banks, safes, &c.	M. R. Stephenson and Oliver Edwards -----	Boston, Mass. -----	July 9, 1844.
Locks for banks, safes, vaults, &c.	M. R. Stephenson and Oliver Edwards -----	Boston, Mass. -----	April 17, 1844.
Locks, door	Linus Yale -----	Springfield, Mass -----	June 13, 1844.
Metal, method of making patterns for casting hollow ware and other articles of.	Ezra Ripley -----	Troy, N. Y. -----	Aug. 31, 1844.
Nail-cutting machines, feeder for	Caleb Jobister -----	Alleghany, Penn -----	Dec. 31, 1844.
Pins, arranging and sticking in papers	De Grasse Fowler -----	North Bradford, Conn. -----	Sept. 20, 1844.
Pipes, lead, machinery for the manufacture of.	Charles and George E. Sellers -----	Cincinnati, Ohio. -----	Mar. 9, 1844.
Plates, door	J. H. Grout and F. M. Ray -----	New York, N. Y. -----	Mar. 20, 1844.
Plates, door and signs of separate types, &c., method of making.	Edmund Morris -----	Philadelphia, Penn. -----	April 25, 1844.
Rolling irregular figures to a pattern, machine for.	William Field -----	Pawtucket, R. I. -----	Aug. 7, 1844.
Spike-machine	Samuel G. Reynolds -----	Bristol, R. I. -----	July 26, 1844.
Steel and iron, manufacture of	Charles Low -----	England -----	May 28, 1846; antedated May 25, 1844.
Steel, manufacture of	Simeon Broadmeadow -----	New York, N. Y. -----	May 25, 1844.
Vessels of soft metal, method of making	John Rand -----	Citizen of U. S. -----	Aug. 7, 1844.



CLASS III.—MANUFACTURES OF FIBROUS AND TEXTILE SUBSTANCES, including machines for preparing fibres of wool, cotton, silk, fur, paper, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Braid, Tuscan, &c., weaving -----	Elisha Fitzgerald -----	New York, N. Y. -----	Nov. 13, 1844; antedated October 16, 1844.
Bonnet tips, apparatus for pressing -----	Thomas Kendall -----	New York, N. Y. -----	Sept. 3, 1844.
Bonnets and hats, machine for pressing -----	Caleb Merritt -----	Baltimore, Md. -----	Mar. 13, 1844.
Bonnets, portable -----	Thomas Hammond -----	New York, N. Y. -----	Oct. 30, 1844.
Carding fibrous substances, self-stripping card for.	H. Barbour and J. Gleason -----	Lowell, Mass. -----	Dec. 4, 1844.
Cloth, brushing and winding -----	Reuben C. Varnel -----	West Somers, N. Y. -----	Mar. 13, 1844.
Cotton, wool, &c., burring and cleaning -----	Silas G. Mumford -----	North Providence, R. I. -----	Mar. 28, 1844.
Gin, cotton, roller, &c. -----	Richard Reynolds, jr. -----	Beaufort, S. C. -----	Feb. 2, 1844.
Ginning cotton, saw-gin for -----	Eleazer Carver -----	Bridgewater, Mass. -----	April 4, 1844.
Ginning cotton, saw-gin for -----	John H. Sherard -----	Livingston, Ala. -----	April 30, 1844.
Hats, manufacture of -----	John Maguire -----	Washington, D. C. -----	Dec. 7, 1844.
Hemp breaker and cleaner -----	Constant B. Butler -----	Petersburg, Tenn. -----	Jan. 6, 1844.
Hemp and flax break -----	Aaron F. Bruce -----	Marshall, Mo. -----	June 24, 1844.
Hemp, &c., heckling and spinning -----	William Montgomery -----	Boston, Mass. -----	Feb. 28, 1844.
Lace, power loom for weaving -----	Erastus B. Bigelow -----	West Boylston, Mass. -----	April 20, 1837.
Loom, figure power -----	William Coompton -----	Taunton, Mass. -----	Nov. 25, 1837.
Loom, fish nets -----	J. and William Carr and J. Shannon -----	Sunbury, Penn. -----	Sept. 4, 1844.
Loom for regulating the delivery of the warp from the warp beam.	William H. Brayton -----	Warren, R. I. -----	Jan. 6, 1844.
Loom, knitting -----	Richard Walker and Jefferson McIntire -----	Portsmouth, N. H. -----	Feb. 12, 1844.
Loom, rotary temples for -----	Isaac C. Lane -----	Waltham, Mass. -----	Mar. 26, 1844.
Looms for weaving piled fabrics without the figuring wires.	Seivier Robert W. -----	Middlesex county, England -----	June 1, 1852; antedated September 5, 1844.
Looms, power -----	James Nield -----	Taunton, Mass. -----	May 25, 1844.
Paper, sand, glass, or emery, making -----	Edmund Morris -----	Philadelphia, Penn. -----	Sept. 14, 1844.
Ropes, machinery for laying and winding the same into coils.	S. and J. A. Bazin -----	Canton, Mass. -----	Feb. 28, 1844.
Rotary press for woollen goods -----	Moses Bayley -----	Salisbury, Mass. -----	July 5, 1837.

Roving in cans, mode of laying -----	J. Tatham and D. Cheetham -----	Rochdale, England -----	Nov. 18, 1845; antedated March 14, 1844.
Silk reels -----	James S. Harris -----	Poultney, Vt. -----	July 30, 1844.
Spinning bobbins, method of operating the, in machinery, for spinning fibrous sub- stances. -----	Francis McCully, jr. -----	Patterson, N. J. -----	Oct. 30, 1844.
Spinning, flier and dead spindle for -----	Phineas Stevens -----	Nashua, N. H. -----	April 20, 1844.
Spinning, hook, spinner, and twister whirling, and rotary ring. -----	John Thorp -----	North Wrentham, Mass -----	Sept. 27, 1844.
Spinning woollen roving -----	Edgar M. Titcomb -----	Andover, Mass -----	July 29, 1837.
Wool, combing -----	Ezra Gould -----	Patterson, N. J. -----	Oct. 9, 1844.

CLASS IV.—CHEMICAL PROCESSES, MANUFACTURE, AND COMPOUNDS, including medicines, dyeing, color-making, distilling, soap and candle making, mortars, cements, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Cements, making -----	William H. Smith -----	Georgetown, D. C. -----	June 10, 1844.
Coloring and hardening wood -----	Charles F. Spicker -----	New York, N. Y. -----	June 24, 1844.
Composition for aqueduct pipes -----	Gideon Myers -----	Bridgewater, N. Y. -----	Mar. 28, 1844.
Composition for dyeing the hair -----	Auguste Grandjean -----	New York, N. Y. -----	Feb. 28, 1844.
Composition for glazing -----	Thomas and Ephraim Parker -----	Orangeville, Pa. -----	Feb. 20, 1844.
Composition for making brick -----	Nathaniel J. Wyeth -----	Cambridge, Mass -----	Mar. 28, 1844.
Composition for leather, water-proof -----	William J. Roome -----	New York, N. Y. -----	Jan. 6, 1844.
Compounds, disinfecting -----	Jean LeDoyen -----	Paris, France -----	Dec. 24, 1847; antedated Oct. 8, 1844.
Dyeing yarn, machinery for -----	William A. Burke, assignor to "Amoskeag Manufacturing Company." -----	Manchester, N. H. -----	May 30, 1844.
Friction matches -----	Elisha Smith -----	Erving, Mass -----	Oct. 3, 1844.
Lamp-black, making -----	John G. Mini -----	Philadelphia, Pa -----	Nov. 13, 1844.
Lard, preparing -----	H. A. Amelung -----	Alton, Ill -----	Nov. 13, 1844.
Lard, rendering -----	Ebenezer Wilson -----	Cincinnati, Ohio -----	Oct. 9, 1844.
Mash tubs -----	Benjamin Roop -----	Pekin, Ohio -----	May 6, 1844.
Ointment, mercurial, machines for making -----	James W. W. Gordon -----	Baltimore, Md. -----	June 5, 1844.
Ointment for piles -----	William W. Riley -----	Mansfield, Ohio -----	Jan. 31, 1844.



*Expired patents for inventions—CLASS IV.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Paints, fire and water-proof-----	Joseph Weisman-----	Philadelphia, Pa-----	Jan. 31, 1844.
Saleratus, making-----	Edward Chamberlain-----	Boston, Mass-----	Sept. 7, 1844.
Salt, making-----	Isaac Noyes-----	Kanawha Salines, Va-----	April 25, 1844.
Sealing-wax, igniting-----	Joseph Fatman-----	Philadelphia, Pa-----	April 17, 1844.
Sugar-boilers-----	Abraham Hager-----	Donaldsonville, La-----	Mar. 9, 1844.
Sugar candy-----	H. and G. Garrison-----	Newburgh, N. Y-----	April 10, 1844.
Sugar, cleaning-----	Joseph Hurd-----	Stoneham, Mass-----	Oct. 3, 1844.
Tallow, &c., cutting-----	Zabina Ellis-----	Kensington, Pa-----	Oct. 12, 1844.
Tobacco, renovating-----	Enoch Huse-----	Newburyport, Mass-----	July 22, 1844.

*CLASS V.—CALORIFICS, comprising lamps, fire-places, stoves, grates, furnaces for heating buildings, cooking-apparatus, preparation of fuel, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Chimneys, building-----	Joseph Gilbert-----	Stark county, Ohio-----	Nov. 13, 1844.
Chimneys, caps for regulating the draught of-----	Joseph Hurd-----	Stoneham, Mass-----	Dec. 12, 1844.
Coal, breaking-----	Joseph Battin-----	Philadelphia, Penn-----	Feb. 12, 1844.
Fire, apparatus for extinguishing-----	William H. Phillips-----	Langton Place, England-----	April 9, 1850; antedated Dec. 4, 1844.
Fire-fenders-----	Morgan Morgan, jr-----	New York, N. Y-----	July 22, 1844.
Fire-places-----	Daniel Hemingway-----	Leesbury, Ky-----	Nov. 9, 1844.
Furnace grate bars-----	John Kymmer-----	Caermarthen, South Wales-----	July 19, 1844.
Furnaces, air-heating-----	Jephtha Bradley-----	St. Albans, Vt-----	June 24, 1844.
Furnaces, portable-----	George E. Waring-----	Stanford, Conn-----	Mar. 16, 1844.
Furnaces for heating buildings-----	George Walker-----	New Haven, Conn-----	June 10, 1844.
Lamp-caps-----	Francis Draper-----	East Cambridge, Mass-----	Mar. 20, 1844.

Lamp-caps	R. H. Eddy, assignor to D. Jarvis and New England Glass Company.	Boston, Mass.	May 10, 1844.
Lamps, lard	John Tobin	Bloomfield, N. J.	Mar. 26, 1844.
Lamp-wicks, raising	Samuel Rust	New York, N. Y.	Mar. 9, 1844; antedated Jan. 29.
Lamps	Henry B. Fernald	Boston, Mass.	May 17, 1844.
Lamps, construction of	Christopher West	Baltimore, Md.	Oct. 7, 1844.
Lamps, making glass	P. F. Slane and John Golding	East Cambridge, Mass.	Jan. 23, 1845; antedated July 23, 1844.
Lamps, light-house	Winslow Lewis, sr., and Benjamin Hemmenway	Boston, Mass.	Aug. 7, 1844.
Lamps, self-supplying	Edwin B. Horn	Roxbury, Mass.	Sept. 11, 1844.
Lamps, volatile ingredients for burning	Isaiah Jennings	Boston, Mass.	Oct. 12, 1844.
Oil feeders	Joseph Benson	New York, N. Y.	Feb. 28, 1844.
Ovens, bake	Grouvelle, P. L. N., and E. Mouchot, assignor to B. Rodriguez	Boston, Mass.	March 20, 1847; antedated April 27, 1844.
Ranges, cooking	Herbert H. Stimson	Paris, France	May 17, 1844.
Ranges, kitchen	Ambrose W. Thompson	New Orleans, La.	March 20, 1844.
Ranges, kitchen	Julius Fink	Boston, Mass.	April 10, 1844.
Reflectors, metallic	Alonzo Farrar	Philadelpia, Pa.	April 4, 1844.
Stoves	James White	Boston, Mass.	June 10, 1842.
Stoves	Loammi Bailey	Milton, Pa.	March 26, 1844.
Stoves	John Smart	Boston, Mass.	March 28, 1844.
Stoves, air-heating and cooking	John Woolley	Philadelpia, Pa.	March 16, 1844.
Stoves, air-tight	John Cline	Springfield, Mass.	Jan. 6, 1844.
Stoves, air-tight, self-regulating	Saxton and Elliot, assignors to Harned and Elliott.	Norwalk, Ohio	Oct. 30, 1844.
Stoves, apparatus for regulating (the heat of)	Samuel D. Tillman	Philadelpia, Pa.	April 17, 1844.
Stoves, cooking	John T. Davy	Seneca Falls, N. Y.	Feb. 12, 1845; antedated Aug. 12, 1844.
Stoves, cooking	James Young and E. Parker	Troy, N. Y.	Feb. 12, 1844.
Stoves, cooking	Simon Pettes	Philadelphia, Pa.	Feb. 12, 1844.
Stoves, cooking	S. S. Jones	Schenectady, N. Y.	Feb. 20, 1844.
Stoves, cooking	Ashley Hotchkin	Philadelpia, Pa.	Feb. 20, 1844.
Stoves, cooking	Samuel Pentz	New York	March 9, 1844.
Stoves, cooking	Roswell Bush	Boonsboro', Md.	April 4, 1844.
Stoves, cooking	Abner Leland	Rochester, N. Y.	April 4, 1844.
Stoves, cooking	Frederick Kesselmeier	Milton, Pa.	April 13, 1844.
Stoves, cooking	Peter Mills	Wooster, Ohio	April 30, 1844.
		Binghampton, N. Y.	



*Expired patents for inventions—CLASS V.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Stoves, cooking.....	Isaac Straub.....	Cincinnati, Ohio.....	June 5, 1844.
Stoves, cooking.....	Thomas Bent, assignor to W. & R. P. Resor.	Cincinnati, Ohio.....	June 5, 1844.
Stoves, cooking.....	Calvin Fulton.....	Rochester, N. Y.....	June 10, 1844.
Stoves, cooking.....	John C. Hernance.....	Schenectady, N. Y.....	June 13, 1844; antedated June 7, 1844.
Stoves, cooking.....	Henry W. Camp.....	Oswego, N. Y.....	June 24, 1844.
Stoves, cooking.....	James Wager.....	Troy, N. Y.....	July 9, 1844.
Stoves, cooking.....	James Lewis.....	Amsterdam, N. Y.....	Sept. 20, 1844.
Stoves, cooking.....	John W. Riggs.....	Fort Plain, N. Y.....	Oct. 30, 1844.
Stoves, cooking.....	James H. Lyon.....	Schenectady, N. Y.....	Nov. 18, 1844.
Stoves, cooking.....	Adam Ketler.....	Philadelphia, Pa.....	Dec. 7, 1844.
Stoves, cooking.....	Archibald Wieting.....	Middletown, Pa.....	Dec. 16, 1844.
Stoves, cooking.....	William L. Patter.....	Clifton Park, N. Y.....	Dec. 19, 1844.
Stoves, cooking.....	J. B. Chollar and H. Parmlee, assignors to Chollar, Jones, and Low.	West Troy, N. Y.....	July 11, 1844.
Warming buildings, apparatus for.....	Benjamin Blaney.....	Boston, Mass.....	Sept. 7, 1844.

*CLASS VI.—STEAM AND GAS ENGINES, including boilers and furnaces therefor, and parts thereof.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Boilers, steam, &c., heater of.....	Zenas C. Robbins.....	St. Louis, Mo.....	Oct. 16, 1844.
Boilers, steam, &c., regulating the supply of water to.	John Cochrane.....	Newark, N. J.....	July 13, 1844.
Boilers, steam engine, regulating the supply of water to.	Daniel Barnum.....	Bridgeport, Conn.....	July 24, 1844.
Boiler, steam, removing incrustations of.....	Louis Antoine Ritterbandt.....	Poland.....	Sept. 11, 1845; antedated Dec. 2, 1844.

Furnaces of steam boilers-----	Leman Bradley -----	Sharon, Conn -----	Dec. 12, 1844.
Gas or vapor, engine to be operated by the explosive mixtures of inflammable.	Stuart Perry -----	Newport, N. Y -----	May 25, 1844.
Steam-engine, auxiliary, constructing and governing an, for the purpose of supplying a steam-boiler with water.	Henry R. Worthington -----	New York, N. Y -----	July 24, 1844.
Steam-engines, opening and closing the valves of.	Frederick E. Sickles -----	New York, N. Y -----	Oct. 19, 1844.
Steam-engine and other boilers, supplying air to consume the combustible gases, &c., that escape from the furnaces of.	Peter Robinson -----	Waterloo, N. Y -----	April 20, 1844.
Steam-engine, rotary -----	Abram Pease -----	Lyons, N. Y -----	Feb. 12, 1844.
Steam-engine, rotary, exhausting the case of a-	Edward Locke -----	Newport, England -----	Sept. 11, 1844.
Steam-engine, vibrating -----	Ebenezer A. Lester -----	Boston, Mass -----	Feb. 7, 1844.
Steam-engines, condenser and boilers of -----	Benjamin Crawford -----	Alleghany City, Penn -----	Sept. 7, 1844.
Steam-engines, conical balance valves of -----	Thomas McDonough -----	Middletown, Conn -----	Feb. 12, 1844.
Steam-engines, locomotive -----	Edwin F. Johnson -----	Middletown, Conn -----	Dec. 31, 1844.
Steam-generators -----	Gabriel H. Moreau -----	France -----	Jan. 26, 1844.
Steam-valves, conical seat -----	Sprague Barber -----	New York, N. Y -----	April 20, 1844.
Steam-valves, method of connecting the action of the cut-off and.	Barnabas H. Bartol -----	Coldspring, N. Y -----	Sept. 20, 1844; antedated Mar. 20, 1844.

CLASS VII.—NAVIGATION AND MARITIME IMPLEMENTS, comprising all vessels for conveyance on water, their construction, rigging, and propulsion, diving-dresses, life-preservers, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Harpoon -----	Albert Moor -----	Hampden, Me -----	Mar. 16, 1844.
Ice-breaker for boats and other vessels -----	Samuel Nicholson -----	Boston, Mass -----	July 16, 1844.
Life-preserver -----	Adoniram Chandler -----	New York, N. Y -----	Oct. 3, 1844.
Paddle wheels, horizontal -----	P. Lear and E. Buck. Buck assignor to Lear.	Boston, Mass -----	Feb. 20, 1844.
Propeller, rotary inclined, for vessels -----	Richard F. Loper -----	Philadelphia, Penn -----	Feb. 28, 1844.
Propellers, spiral -----	Bennet Woodcroft -----	Manchester, England -----	April 4, 1846; antedated Feb. 13, 1844.



Expired patents for inventions—CLASS VII.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Engines, submerged.....	Peter Von Schmidt.....	Washington, D. C.....	May 30, 1844.
Propellers, submerged, coupling the shafts of, for steamboats and other vessels.	Richard F. Loper.....	Philadelphia, Penn.....	Oct. 9, 1844.
Propelling boats and other vessels, oblique paddle propeller for.	Ralph Bulkley.....	New York, N. Y.....	Mar. 13, 1844.
Propelling canal and other boats.....	Henry R. Worthington.....	New York, N. Y.....	Feb. 2, 1844.
Propelling ships.....	John Ericsson.....	New York, N. Y.....	Dec. 31, 1844.
Propelling steam and other vessels.....	Gabriel H. Moreau.....	France.....	Jan. 26, 1844.
Ships and other vessels, strengthening the sails of.	Archibald Trail.....	Great Britain.....	Sept. 24, 1844; antedated Feb. 24, 1844.
Ships, cellars, &c., mode of caulking the seams of.	William Bennet.....	New York, N. Y.....	April 20, 1844.
Square-rigged vessels, forming and rigging the sails of.	Warren C. Choate.....	Washington, D. C.....	April 17, 1844.

CLASS VIII.—MATHEMATICAL, PHILOSOPHICAL, AND OPTICAL INSTRUMENTS, including clocks, chronometers, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Barometers .....	Fontaine Moreau, P. A., de.....	London, England.....	Aug. 20, 1846; antedated April 27, 1844.
Chronometer escapements.....	Oramel W. Waste.....	Pittsford, N. Y.....	Sept. 24, 1844.
Clock-pendulums .....	Frederick Kesselmeier.....	Wooster, Ohio.....	April 10, 1844.
Interest, machine for calculating .....	Jehu Hatfield.....	Glenn's Falls, N. Y.....	May 6, 1844.
Rules or measures for boards, leather, &c.....	Charles Ross.....	Piqua, Ohio.....	May 17, 1844.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Dock, floating dry, basin to be used in connexion with.	R. Moody and S. D. Dakin.	New York, N. Y.	Sept. 17, 1844.
Doors, sliding.	William T. Forsyth.	Philadelphia, Penn.	Feb. 12, 1844.
Excavating; cutting trenches, and laying pipes.	Ezra Cornell.	Ithaca, N. Y.	Feb. 28, 1844.
Excavating; ditching-machines.	Edwin Owen.	Laporte, Indiana.	Sept. 21; antedated Mar. 24, 1844.
Excavating; excavator or drag for removing mud, &c., in beds of rivers.	Dennis Vermillion.	Washington, D. C.	Nov. 9, 1844.
Excavating; excavator, scoop or dredging-machine.	Joseph Smith.	Mansfield, Ohio.	Aug. 24, 1844.
Excavating; scrapers for repairing and making roads, &c.	Samuel G. Sutton.	Yorkshire, N. Y.	May 30, 1844.
Railroads, connecting cast-iron rail for.	James M. Bay.	Harrisburg, Penn.	April 13, 1844.
Railroads, key for fastening the rails of, to their chairs.	Benjamin Butterfield.	Kensington, Penn.	Aug. 21, 1844.
Railroads, safety switch for.	Gustavus A. Nicolls.	Reading, Penn.	Dec. 19, 1844.
Railroad truck-frames.	Charles Davenport, assignor to Davenport and Bridges.	Cambridgeport, Mass.	Aug. 10, 1844.
Roofs of houses, &c., manner of making.	John Woolley.	Springfield, Mass.	Mar. 26; antedated March 16, 1844.
Roofs of houses, &c.	Peter Naylor.	New York, N. Y.	April 25, 1844.
Streets, machine for sweeping.	Alexander M. Wilson.	Rossville, N. Y.	Oct. 16, 1844.
Telegraphs, signal.	Henry J. Rogers.	Baltimore, Md.	Sept. 27, 1844.



## CLASS X.—LAND CONVEYANCE, comprising carriages, cars, and other vehicles used on roads, and parts thereof.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Boxes, anti-friction, for axles, &c. ----- {	William Rowan, assignor to -----	Belfast, Ireland. -----	Oct. 9, 1855; antedated
Cars, railroad, and carriages, supporting the	Thomas Murray Megget -----	New Orleans, La. -----	November 7, 1844.
bodies of. -----	Richard Imlay -----	Philadelphia, Penn. -----	Sept. 21, 1837.
Cars, railroad, for turning curves. -----	John H. Quail -----	Philadelphia, Penn. -----	Feb. 28, 1844.
Cars, railroad, locomotives, &c., coupling-bars	William D. Chesnut -----	Wilmington, Del. -----	Feb. 20, 1844.
for. -----	Elisha Tolles -----	New York, N. Y. -----	Feb. 20, 1844.
Cars, railroad, to prevent accidents from what	George Nichols -----	Trumbull, Conn. -----	April 10, 1844.
are called "snake-heads." -----	John Reynolds -----	Newberry, Penn. -----	July 9, 1844.
Carriage bodies, connecting with perch by	John Madden -----	Warren, Ohio -----	July 9, 1844.
means of springs. -----	James S. Shnell -----	Shiremanstown, Penn. -----	April 13, 1844.
Carriage bodies, hanging -----	Erastus T. Sprout -----	Dimock, Penn. -----	Sept. 7, 1844.
Carriages, detaching horses from. -----	George W. Hatch -----	Parkman, Ohio -----	June 13, 1844.
Carriages, disengaging horses from. -----	James McCollum -----	Wilsonville, Ala. -----	May 10, 1744.
Carriages, spring-brace for. -----	James Pilbrow -----	Tottenham, England. -----	July 26, 1845; antedated
Carriages, wagons, &c., couplings for. -----	Ebenezer A. Lester -----	Boston, Mass. -----	May 17, 1844.
Carriages, wrought-iron wheels for. -----	Gershom L. Ackerman -----	Troy, N. Y. -----	Mar. 9, 1844.
Railroads, atmospheric -----	Moses Palmer -----	Baltimore, Md. -----	April 16, 1845; antedated
Wheels, cast-iron railroad car, making -----			October 16, 1844.
Wheels, carriage. -----			Mar. 9, 1844.
Wheel-hubs, lining metallic boxes for. -----			

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Engines, fire.....	Gardiner Barton, jr.....	Waterford, New York.....	Aug 16, 1844.
Hydro-pneumatic apparatus for raising beer, &c., from casks.....	Richard Sealy.....	New York, N. Y.....	Aug. 31, 1844.
Pipes, supply, construction of, for aqueducts.....	John H. Thorndike.....	Boston, Massachusetts.....	July 1, 1844.
Pumps.....	T. Jefferson Wolfe.....	Baltimore, Maryland.....	April 10, 1844.
Water and animal power.....	John A. Wiszt.....	Philadelphia, Pennsylvania.....	May 10, 1844.
Water wheels.....	Hiram Ferguson.....	Richland, New York.....	Mar. 20, 1844.
Water-wheels.....	Nelson Johnson.....	Rathboneville, New York.....	Mar. 26, 1844.
Water-wheels.....	Albert Stimpson.....	Rockingham, Vermont.....	April 25, 1844.
Water-wheels.....	Daniel Weaver.....	McKeansburg, Pennsylvania.....	June 10, 1844.
Water-wheels.....	David Putney.....	Redbank, Pennsylvania.....	Aug. 12, 1844.
Water-wheels.....	Roswell Cook.....	Elkland, Pennsylvania.....	Sept. 4, 1844.
Water wheels.....	J. D. Robinson.....	Peoria, Illinois.....	Oct. 24, 1844.
Water wheels.....	Samuel L. Valentine.....	Bangor, Maine.....	Dec. 12, 1844.
Water-wheels.....	Theodore R. Timby.....	Cato 4 corner, New York.....	Sept. 27, 1844.
Water wheels, combined.....	E. G. Covel.....	Glenn's Falls, New York.....	Feb. 20, 1844.
Water-wheels, current.....	John Carnegy.....	Tully, Missouri.....	April 10, 1844.
Wind-wheels, horizontal.....	Daniel Dennett.....	Centreville, Louisiana.....	Nov. 13, 1844.



Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Balances.....	George R. Moore.....	Brattleboro', Vermont.....	Jan. 6, 1844.
Balances, spring.....	J. H. and R. H. Bull.....	New York, N. Y.....	Sept. 20, 1844.
Presses.....	Amos Jackson.....	Liberty, Illinois.....	June 24, 1844.
Presses, cheese, self-acting.....	John Martin, jr.....	Aztalan, Wisconsin.....	Nov 26, 1844.
Presses, cotton.....	Seth Lamb.....	New York, N. Y.....	Mar. 16, 1844.
Presses, cotton.....	Perry G. Gardiner.....	New York, N. Y.....	Mar. 20, 1844.
Presses, cotton.....	William Sewell, jr.....	Macon, Georgia.....	June 15, 1844.
Presses, cotton.....	George Peck.....	Fairfield, Connecticut.....	March 9, 1844.
Presses, cotton.....	William F. Provost.....	Barnwell District, South Carolina.....	Sept. 14, 1844.
Presses, cotton.....	Jedediah Prescott.....	Memphis, Tennessee.....	Nov. 9, 1844.
Presses, cotton.....	Peter M. Wright.....	New York, N. Y.....	Nov. 26, 1844.
Presses, cotton.....	Smith Cram.....	New York, N. Y.....	March 9, 1844.
Pressing and raising weights, machines for.....	Robert Sanderson.....	Athens, Ohio.....	Feb. 20, 1844.
Pressing, lever power for.....	David Smith.....	South Hill, Virginia.....	Jan. 15, 1844.
Pressing, machines for preparing tobacco for.....	Moses Bayley.....	Salisbury, Massachusetts.....	July 5, 1837.
Rotary press for woollen goods.....			

CLASS XIII.—GRINDING-MILLS AND MILL-GEARING, including grain-mills, mechanical movements, and horse-power.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bark-mill for grinding tanners' bark.....	Mather Beecher.....	Remsen, N. Y.....	Sept 27, 1844.
Bolter, for bolting flour.....	Ryburn Buchanan.....	Sullivan county, Tenn.....	July 24, 1844.
Grinding corn and cobs, mill for.....	Samuel L. Herr.....	Mexico, Penn.....	April 4, 1844.
Grinding grain, cylindrical mill for.....	Jacob Groat.....	Troy, N. Y.....	July 11, 1844.
Grinding grain, mill for.....	E. B. Nichols and D. Marsh.....	Fairfield, Conn.....	Mar. 13, 1844.
Grinding grain, portable mills for.....	Erastus Arnold.....	Otego, N. Y.....	Mar. 9, 1844.
Grinding-mills.....	George T. Walters.....	Nicholasville, Kentucky.....	Feb. 12, 1844.
Grist-mills.....	John Ansell and J. Gallery.....	Brooklyn, N. Y.....	Aug. 21, 1844.

Horse-power for driving machinery.....	A. D. Childs.....	Rochester, N. Y.....	May 6, 1844.
Horse-power for driving machinery.....	Samuel B. Haines.....	Greensburg, Penn.....	Dec. 31, 1844.
Journals, preventing from heating.....	Elisha Reid.....	Columbus, Ga.....	May 25, 1844.
Machinery, governor for regulating the move- ments of mill-wheels, steam-engine, and other.....	Henry Burt.....	Boston, Mass.....	Aug. 31, 1844.
Mill-bush.....	John Heck.....	Boonsboro', Md.....	Mar. 26, 1844.
Mill-bush.....	Robert M. Wade.....	Summit Point, Va.....	May 25, 1844.
Wheels, tide.....	John G. Ross.....	New York, N. Y.....	Nov. 9, 1844.

CLASS XIV.—LUMBER, including machines and tools for preparing and manufacturing, such as sawing, planing, mortising, shingles and staves, carpenters' and coopers' implements.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Barrels, machinery for making.....	Horace Paker.....	McLean, N. Y.....	July 30, 1844.
Boring-machines, method of securing, to the article to be bored.....	Peter Baylor.....	Salem, Ohio.....	July 1, 1844.
Boring timber, machine for.....	Thomas J. Russell.....	Franklin Square, Ohio.....	Oct. 3, 1844.
Boxes, machinery for preparing wood for making.....	John H. Stevens.....	New York, N. Y.....	Dec. 19, 1844.
Hoops, splitting.....	William Rose.....	Philadelphia, Penn.....	Sept. 3, 1844.
Lathe for turning boats' oars.....	B. and A. F. Potter.....	Hubbardston, Mass.....	Jan. 20, 1844.
Laths and clapboards, sawing.....	Eliphalet C. Gilman.....	Canaan, Conn.....	Aug. 23, 1844.
Logs, setting saw.....	Waterman B. Palmer.....	Brookfield, N. Y.....	July 24, 1844.
Match splints, cutting.....	Henry Law.....	Wilmington, N. C.....	Aug. 28, 1844.
Planes, bench, setting the bitt in.....	Levi Sanford.....	East Solon, N. Y.....	Nov. 26, 1844.
Saws, circular, for cutting off piles under water.....	Erastus E. Cole.....	Boston, Mass.....	Sept. 14, 1844.
Saws, circular, for sawing lumber, &c., man- ner of applying.....	John K. Mayo.....	Orrington, Maine.....	Mar. 20, 1844.
Saws, machine for filing.....	Calvin B. Rogers.....	Saybrook, Conn.....	Dec. 7, 1844.
Saws of saw-mills without a gate, straining the.....	Calvin Stigleman and A. Seely.....	Alton, Ill.....	Dec. 16, 1844.
Saw-mill, setting logs on the carriage of a.....	John B. Squier.....	Liberty Township, Ohio.....	Oct. 9, 1844.



*Expired patents for inventions.—CLASS XIV.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Saw-mills, tail-blocks of -----	John Miller -----	Williamsport, Ohio -----	Jan. 20, 1844.
Saw-mills, tail and head blocks of -----	Thomas C. Theaker -----	Bucyrus, Ohio -----	Jan. 20, 1844.
Saw-mills, tail and head blocks of, self-setting. -----	J. J. Parker -----	Plymouth, Ohio -----	June 13, 1844.
Saw-mills, setting logs on the carriage of --- }	F. M. Stetson and -----	Sangerfield, N. Y. -----	July 15, 1844.
	John Eaton -----	Brookfield, N. Y. -----	
Saw-mills, setting saw logs and opening and shutting gates of. -----	Nathaniel P. Stearns -----	Linklaen, N. Y. -----	Oct. 30, 1844.
Saw-mill carriages, self-setting apparatus for setting logs on. -----	Benjamin Webb -----	Warren, N. Y. -----	May 6, 1844.
Saw-mill carriages, for steadying logs thereon. -----	Henry Stanton -----	Richfield, N. Y. -----	July 16, 1844.
Scythe-handles, &c., machinery for making -----	James Embree -----	Marshallton, Penn. -----	Aug. 7, 1844.
Shingle-cutter -----	Jonathan P. Bartley -----	Flanders, N. Y. -----	May 25, 1844.
Shingles, cutting -----	William Wood -----	Westport, Conn. -----	Mar. 20, 1844.
Shingles, cutting, machine for -----	Tillot Cole -----	Kent, N. Y. -----	Nov. 26, 1844.
Shingles, sawing -----	Israel G. Johnson -----	Augusta, Me. -----	Aug. 12, 1844.
Shingles, shaving -----	Simeon Wood -----	Worcester, Mass. -----	Jan. 15, 1844.
Tenoning and mortising machines -----	Eldridge Lyman -----	Northfield, Mass. -----	May 25, 1844.
Tonguing and grooving machines -----	Charles W. Brown -----	Boston, Mass. -----	Aug. 14, 1844.
Turning irregular forms, machinery for -----	Edwin Tucker -----	Bucyrus, Ohio -----	Oct. 24, 1844.
Turning spools -----	Jonathan H. Cary -----	North New Salem, Mass. -----	Aug. 21, 1844.
Turning wood tapering -----	Wyllys Avery -----	Salisbury, N. Y. -----	June 5, 1844.
Vice, standing or bench -----	Lauren M. Peck -----	Philadelphia, Penn. -----	July 18, 1844.
Wood, shaving -----	William Rose -----	Philadelphia, Penn. -----	Sept. 3, 1844.

CLASS XV.—STONE AND CLAY MANUFACTURES, including machines for pottery, glass-making, brick-making, dressing and preparing stone, cements, and other building materials.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Brick-moulding machines	John Booth and William H. Stevenson	Columbus, Miss	Jan. 6, 1844.
Brick-presses	Mark Twitchell	Gray, Me	June 10, 1844.
Brick-presses	Jeffery Smedley	Columbia, Penn	Aug. 28, 1844.
Brick-presses	C. B. Baker and E. Gifford	Troy, N. Y	Sept. 7, 1844.
Brick-presses	Nathan Sawyer	Baltimore, Md	Sept. 27, 1844.
Brick-presses	Benjamin H. Brown	Philadelphia, Penn	Oct. 3, 1844.
Bricks, moulding	Wm. S. Peters, executor of Ithiel Town	New Haven, Conn	Sept. 27, 1844.
Moulding and pressing bricks	Nathaniel Adams	Cornwall, N. Y	Sept. 8, 1837.
Mill-stones, dressing	John Black	Helena, Ark	Aug. 10, 1844.
Stone-cutters	Jacob Jenks	Roscoe, Ill	June 24, 1844.
Stone, dressing	Hammond Ward	Charlton, Mass	April 10, 1844.
Stone, sawing and dressing	D. Pfister, assignor to John Keller	Manedorf, Switzerland	April 10, 1845; antedated Dec. 3, 1844.

CLASS XVI.—LEATHER, including tanning and dressing, manufacture of boots, shoes, saddlery, harness, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Boot-crimps	Pelatiah Stevens, jr	Canton, Mass	July 15, 1844.
Boot-shanks, elastic	Isaiah Gale	Natchez, Miss	July 11, 1844.
Boots, cork sole	William L. McCauley	Baltimore, Md	June 5, 1844.
Boots, cutting	Thomas Cranage	Warren, Ohio	Mar. 13, 1844.
Crimps for collar pads	Joseph S. Barkdull	Ballston, N. Y	July 13, 1844.
Hames, horse	Nathan Past	Madrid, N. Y	June 15, 1844.
Hames, horse	Joseph K. Slater and Sylvanus G. Pratt	Boston, Mass	Sept. 20, 1844.
Harness, check hooks for	Abel B. Buell	Westmoreland, N. Y	Mar. 13, 1844.



Expired patents for inventions.—CLASS XVI.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Hats of leather, skins and other materials, machinery for forming.	Randall Fish.....	New York, N. Y. ....	Oct. 12, 1844.
Hides, raw, machine for cutting	W. Marshall and J. B. Thursby.....	Brooklyn, N. Y. ....	Sept. 14, 1844.
Leather, making	Robert Downey .....	New Albany, Ind. ....	June 15, 1844.
Saddles, construction of.....	Samuel Ringgold.....	Fort McHenry, Md .....	April 7, 1844.
Sewing with a running stitch, machine for.	James Rodgers.....	New York, N. Y. ....	July 22, 1844.
Soles, cutting	Richard Richards.....	Lynn, Mass. ....	Dec. 16, 1844.
Tanning	John Cox.....	Gorgie Mills, Edinburgh, Scotl'd.	June 5, 1844.
Tanning	Adam Kettering and A. Vogle .....	Hempfield, Penn. ....	June 24, 1844.
Tanning	William Brown .....	Manchester, Md .....	Aug. 1, 1844.
Tanning	Alexander Turnbull .....	England.....	Aug. 28, 1847; antedated Sept. 26, 1844.

CLASS XVII.—HOUSEHOLD FURNITURE, machines and implements for domestic purposes, including washing-machines, bread and cracker-machines, feather-dressing, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bedsteads, bureau.....	Henry W. Kingman .....	New York, N. Y. ....	Oct. 12, 1844.
Bedsteads, cutting screws in the posts and on the rails of.	William F. Converse, R. H. Penny, and R. S. Hanniford.	Harrison, Ohio.....	Dec. 31, 1844.
Bedsteads, sacking bottoms for.....	Isaac Cooper.....	Johnstown, Penn.....	Oct. 7, 1844.
Bedsteads, sofa.....	G. Sickles, assignor to G. L. F. Griswold ..	Middletown, Conn.....	Dec. 4, 1844.
Bread, knife for cutting.....	Franklin Roys .....	Berlin, Conn.....	Oct. 9, 1844.
Brooms, machine for making.....	Jacob H. Hinton.....	Lancaster, Pa.....	Mar. 13, 1844.
Brushes, scrubbing .....	George Carver .....	Chambersburg, Pa.....	Aug. 1, 1844.
Brushes, trimming the bristles of, &c.....	Samuel Taylor.....	East Cambridge, Mass.....	May 17, 1844.
Chairs, rocking.....	A. C. Stiles.....	South Bloomfield, Ohio.....	Sept. 27, 1844.

Coffee-pots -----	Daniel Rowland-----	Washington, D. C -----	Sept. 17, 1844.
Cracker-machine -----	J. Johnson and Otis Freeman, assignors to W. H. Tutte.	Boston, Mass-----	May 17, 1844.
Cutters, sausage meat-----	William Pettenger-----	Rome, Ohio-----	Mar. 26, 1844.
Cutters, sausage meat-----	Edwin Clark-----	Hartford, Conn-----	Aug. 31, 1844.
Exercise, machines for producing-----	Oliver Halsted-----	New York, N. Y-----	Mar. 13, 1844.
Fruit and vegetable preservers-----	Peter Kephart-----	Uniontown, Md-----	Sept. 24, 1844.
Potatoes, keeping sweet-----	Aaron H. Vestal-----	Cambridge City, Ind-----	Aug. 16, 1844.
Refrigerator-----	David Evans-----	Philadelphia, Pa-----	Mar. 26, 1844.
Washing-machine-----	James B. Coffin-----	Big Prairie, Ohio-----	Feb. 2, 1844.
Washing-machines-----	Ephraim Lukens-----	Baltimore, Md-----	Mar. 9, 1844.
Washing-machines-----	Lewis Woodward-----	Med ord, N. J-----	April 4, 1844.
Washing-machines-----	William Newbrough-----	Wooster, Ohio-----	April 17, 1844.
Washing-machines-----	William Soule-----	Stafford, Conn-----	May 17, 1844.
Washing-machines-----	Oliver B. Wight-----	Sturbridge, Mass-----	July 9, 1844.
Washing-machines-----	William E. Arnold-----	Rochester, N. Y-----	July 13, 1844.
Washing-machines-----	David Kaufman-----	Mohecanville, Ohio-----	Aug. 21, 1844.
Washing-machines-----	Nathan Parrish-----	Rush, N. Y-----	Dec. 4, 1844.

CLASS XVIII.—ARTS POLITE, FINE,

AND ORNAMENTAL, including music, painting, sculpture, engraving, books, paper,  
printing, binding, jewelry, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Block-letters, making-----	Lewis Katen-----	New York, N. Y-----	Sept. 20, 1844.
Inking-rollers-----	Richard M. Hoe-----	New York, N. Y-----	April 17, 1844.
Manifold letter-writers-----	Jesse K. Park-----	New York, N. Y-----	Nov. 13, 1844.
Marking and lettering packages, &c-----	William Francis and William Johnson-----	Waynesville, N. C-----	Oct. 3, 1844.
Piano-forte, tuning pins for-----	James Shaler Ives-----	Bristol, Conn-----	Jan. 6, 1844.
Piano-fortes-----	Obed M. Coleman-----	Philadelphia, Pa-----	April 17, 1844.
Piano-fortes-----	Lovering Ricketts-----	Baltimore, Md-----	June 24, 1844.
Piano-fortes-----	O. Gori and P. Ernst-----	New York, N. Y-----	Mar. 26, 1844.
Printing calico-----	Robert Ferguson and John Clark-----	Glasgow, Scotland-----	April 25, 1846; antedated September 14, 1844.



Expired patents for inventions.—CLASS XVIII.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Printing in colors, machines for -----	Thomas F. Adams-----	Philadelphia, Pa.-----	Sept. 17, 1844.
Printing-press-----	Alonzo Gilman-----	Troy, N. Y.-----	Aug. 23, 1844.
Printing-press-----	Richard M. Hoe-----	New York, N. Y.-----	July 30, 1844.
Printing-presses -----	Richard M. Hoe-----	New York, N. Y.-----	April 17, 1844.
Printing-presses -----	Seth Adams-----	Boston, Mass.-----	Sept. 27, 1844.
Stereotyping -----	Clement Davidson-----	Saratoga, N. Y.-----	Nov. 26, 1844.

CLASS XIX.—FIRE-ARMS AND IMPLEMENTS OF WAR, AND PARTS THEREOF, including the manufacture of shot and gunpowder.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Fire-arms -----	William W. Hubbell-----	Philadelphia, Pa.-----	July 1, 1844.
Fire-arms -----	E. Savage and S North-----	Middletown, Conn.-----	July 30, 1844.
Guns, constructing large -----	Richard F. Loper-----	Philadelphia, Pa.-----	July 30, 1844.

CLASS XX.—SURGICAL AND MEDICAL INSTRUMENTS, including trusses, dental instruments, bathing apparatus, &c.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Baths, vapor, apparatus for -----	Alford C. Haines-----	Plattsburg, N. Y.-----	Dec. 4, 1844.
Corslet for curved spines, &c -----	Alanson Abbé-----	Roxbury, Mass.-----	Aug. 7, 1844.
Cupping instrument -----	Robert J. Dodd-----	Philadelphia, Pa.-----	April 13, 1844.
Fracture apparatus -----	Lewis Post-----	Lodi, N. Y.-----	Dec. 16, 1844.
Fractures, apparatus for -----	Livingston Roe-----	White Plains, N. Y.-----	Nov. 6, 1844; antedated May 6, 1844.

Invalids, chairs for .....	James G. Holmes.....	Charleston, S. C.....	Sept. 24, 1844.
Nursing-bottle .....	Eugene Dupuy.....	New York, N. Y.....	Oct. 7, 1844.
Stays for supporting spine of the human body.....	Lyman Whiton .....	Troy, N. Y.....	Oct. 12, 1844.
Teeth, setting artificial.....	J. Smith Dodge.....	New York, N. Y.....	Mar. 13, 1844.
Trusses .....	David Sabins .....	Lancaster, Pa.....	Mar. 20, 1844.
Trusses .....	Epenetus A. Bennett.....	New York, N. Y.....	April 30, 1844.
Trusses .....	C. C. Reinhardt and V. Carter.....	Baltimore, Md.....	Sept. 24, 1844.
Trusses .....	Eliakim C. Darling .....	New Orleans, La.....	Nov. 6, 1844.
Trusses .....	Ga vin Cutter.....	Springfield, Mass .....	Dec. 16, 1844.
Uterine injections, instruments for.....	Dan Gale.....	Boston, Mass.....	Oct. 16, 1844.

CLASS XXI.—WEARING APPAREL, articles for the toilet, &c., including instruments for manufacturing.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Fitting ladies' dresses .....	Samuel S. Richardson .....	Baldwin, Maine.....	April 4, 1844.
Hooks and eyes .....	Elisha C. Savage. ....	Hartford, Conn.....	Mar. 26, 1844.
Suspender buckles.....	Henry Dubosq.....	Philadelphia, Penn.....	April 25, 1844.
Tailors' measures.....	Henry Isham .....	Montpelier, Vt.....	May 30, 1844.
Tailors' measures.....	John P. Combs.....	Trenton, N. J.....	Nov. 9, 1844.

CLASS XXII.—MISCELLANEOUS.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Awnings.....	John Sebo.....	Wilmington, Del.....	May 25, 1844.
India rubber, machine for cutting.....	Henry S. Tyler and John Helm.....	New Brunswick, N. J.....	Oct. 9, 1844.
India rubber fabrics.....	Charles Goodyear.....	New York, N. Y.....	Mar. 9, 1844.
India rubber fabrics.....	Charles Goodyear.....	New York, N. Y.....	Mar. 9, 1844.
India rubber goods, corrugated and shirred.....	Horace H. Day.....	Jersey City, N. J.....	Oct. 12, 1844; antedated June 19, 1844.
Trap for catching animals.....	Thomas Shailer .....	Haddam, Conn.....	May 10, 1844.



## CLASSIFIED LIST OF PATENTS FOR DESIGNS THAT HAVE EXPIRED DURING THE YEAR 1858.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bedsteads.....	P. M. Hutton.....	Troy, N. Y.....	May 20, 1851.
Bedsteads, cast iron.....	Pelatihah M. Hutton.....	Troy, N. Y.....	Sept. 2, 1851.
Bust of Jenny Lind.....	Thomas Ball.....	Boston, Mass.....	April 29, 1851.
Clock frame.....	Nathaniel A. Batchelor.....	New York, N. Y.....	May 13, 1851.
Combs for ladies.....	Aaron Cook.....	Newtown, Conn.....	Aug. 19, 1851.
Fences, cast-iron.....	John T. Davy.....	Troy, N. Y.....	Oct. 21, 1851.
Floor, oil-cloth.....	James Hutchinson, assignor to D., A. E., and N. Powers.....	Troy, N. Y.....	May 13, 1851.
Floor, oil-cloth.....	James Hutchinson, assignor to Deborah, Albert E., and N. B. Powers.....	Troy, N. Y.....	Sept. 2, 1851.
Furnace-registers.....	Gardner Chilson.....	Boston, Mass.....	Mar. 4, 1851.
Furnace-registers.....	Gardner Chilson.....	Boston, Mass.....	Mar. 4, 1851.
Furnace-registers.....	Gardner Chilson.....	Boston, Mass.....	Mar. 4, 1851.
Furnace-registers.....	Gardner Chilson.....	Boston, Mass.....	Mar. 4, 1851.
Gates, metallic.....	Ebenezer Weeman.....	Charlestown, Mass.....	Sept. 16, 1851.
Grates, parlor.....	Joseph Pratt.....	Boston, Mass.....	Mar. 25, 1851.
Grates, parlor.....	Winslow Ames, assignor to Hartshorn and Ames.....	Nashua, N. H.....	April 1, 1851.
Hat-stand.....	Charles Muller.....	Tompkinsville, N. Y.....	Nov. 18, 1851.
Iron-railling.....	Frederick Fitzgerald, assignor to Silas C. Herring and John Ryer.....	New York, N. Y.....	Nov. 18, 1851.
Pedestals and columns.....	W. and W. H. Lewis.....	New York, N. Y.....	Mar. 25, 1851.
Presses, mantle-pieces, &c., frames for.....	Edmund L. Freeman.....	Bellville, N. Y.....	Dec. 23, 1851.
Shovel, stands for.....	Charles Zeuner, assignor to M. Green- wood & Co.....	Cincinnati, Ohio.....	Sept. 9, 1851.
Stove.....	Ezra Ripley, assignor to Chollar, Sage, and Dunham.....	Troy, N. Y.....	Oct. 28, 1851.
Stove, cook.....	William C. Davis.....	Cincinnati, Ohio.....	Jan. 1, 1851.
Stove doors and panels.....	M. C. Burleigh.....	Somersworth, N. H.....	May 13, 1851.
Stove-fronts.....	Ezra Ripley.....	Troy, N. Y.....	Sept. 30, 1851.
Stove or furnace, ventilating.....	E. P. Penniman, assignor to H. Ruttan.....	Rochester, N. Y.....	Sept. 16, 1851.
Stove, parlor.....	Ezra Ripley and N. S. Vedder, assignors to Low and Hicks.....	Troy, N. Y.....	Nov. 25, 1851.

Stove-plates	Calvin Fulton	Rochester, N. Y.	Sept. 2, 1851.
Stove-plates	Lyman S. Hapgood.	Boston, Mass.	June 3, 1851.
Stove-plates	Elijah P. Penniman.	Rochester, N. Y.	July 15, 1851.
Stove-plates	Elijah P. Penniman.	Rochester, N. Y.	July 15, 1851.
Stove-plates, parlor	Apollos Richmond, assignor to A. C. Barstow & Co.	Providence, R. I.	Nov. 18, 1851.
Stove-registers	David Stuart and Jacob Beesly, assignors to William P. Cresson	Philadelphia, Pa.	Dec. 2, 1851.
Stoves	R. J. Blanchard, assignor to Learned & Thatcher.	Albany, N. Y.	July 29, 1851.
Stoves	R. J. Blanchard, assignor to Learned & Thatcher.	Albany, N. Y.	July 29, 1851.
Stoves	R. J. Blanchard, assignor to Learned & Thatcher.	Albany, N. Y.	July 29, 1851.
Stoves	Silas Merchant.	Cleveland, Ohio.	Sept. 2, 1851.
Stoves	Samuel H. Sailor, assignor to North, Harris, & Chase.	Philadelphia, Pa.	Sept. 2, 1851.
Stoves	Anthony W. Jones, assignor to James McGregor, jr.	New York, N. Y.	Sept. 2, 1851.
Stoves	Lyman Cobb.	Ackron, Ohio.	Oct. 14, 1851.
Stoves	Charles J. Woolson.	Cleveland, Ohio.	Oct. 14, 1851.
Stoves	William Savery	New York, N. Y.	Oct. 21, 1851.
Stoves	S. W. Gibbs, assignor to North, Harrison, and Chase.	Albany, N. Y.	Nov. 11, 1851.
Stoves	W. Ames, assignor to J. Hartshorn and W. Ames.	Nashua, N. H.	Dec. 9, 1851.
Stoves	Jeremiah D. Green, assignor to Backus, Bacon, & Co.	Le Roy, N. Y.	Dec. 9, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y.	Mar. 4, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y.	Mar. 4, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y.	Mar. 4, 1851.
Stoves	John S. Perry	Albany, N. Y.	Mar. 4, 1851.
Stoves	J. Wager, D. Pratt, and V. Richmond.	Troy, N. Y.	May 20, 1851.
Stoves	Ezra Ripley, assignor to D. Stafford & Co.	Troy, N. Y.	May 27, 1851.
Stoves	N. P. Richardson.	Portland, Me.	May 27, 1851.
Stoves	William L. Hathaway.	Dighton, Mass.	May 27, 1851.



*Expired patents for designs.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Stoves -----	William L. Sanderson, assignor to R. R. Finch.	Troy, N. Y. -----	June 3, 1851.
Stoves -----	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y. -----	June 10, 1851.
Stoves -----	A. Cox, E. Johnson, and D. B. Cox.	Troy, N. Y. -----	June 10, 1851.
Stoves -----	A. Cox, E. Johnson, and D. B. Cox.	Troy, N. Y. -----	June 10, 1851.
Stoves -----	W. G. Hallman	Philadelphia, Pa. -----	June 10, 1851.
Stoves -----	John F. Rathbone	Albany, N. Y. -----	June 10, 1851.
Stoves -----	D. Stuart and J. Beesley, assignors to W. P. Cresson.	Philadelphia, Pa. -----	June 10, 1851.
Stoves -----	Joseph G. Lamb	Cincinnati, Ohio. -----	June 17, 1851.
Stoves -----	Joseph G. Lamb	Cincinnati, Ohio. -----	June 17, 1851.
Stoves -----	Samuel A. House	Mechanicsville, N. Y. -----	June 24, 1851.
Stoves -----	William C. Davis	Cincinnati, Ohio. -----	July 8, 1851.
Stoves -----	N. S. Vedder, assignor to A. T. Durham & Co.	Troy, N. Y. -----	July 29, 1851.
Stoves -----	Charles Gilbert and Mitchell G. Hallman, assignors to Charles Gilbert.	Philadelphia, Pa. -----	Jan. 1, 1851.
Stoves -----	Elihu Smith	Albany, N. Y. -----	Jan. 7, 1851.
Stoves -----	Joseph G. Lamb	Cincinnati, Ohio. -----	Jan. 21, 1851.
Stoves -----	C. Harris and Paul W. Zoiner	Cincinnati, Ohio. -----	Jan. 28, 1851.
Stoves -----	Seth Williams, assignor to Williams, Bird, and Co.	Nashua, N. Y. -----	April 8, 1851.
Stoves -----	Samuel W. Gibbs, assignor to Jagger, Treadwell, and Co.	Albany, N. Y. -----	April 8, 1851.
Stoves -----	James V. Dewitt	Buffalo, N. Y. -----	July 8, 1851.
Stoves, air-tight -----	N. P. Richardson	Portland, Me. -----	April 1, 1851.
Stoves, air-tight -----	Frederick Schultz	Philadelphia, Pa. -----	April 1, 1851.
Stoves, cooking -----	S. W. Gibbs, assignor to North, Harri son, and Chase.	Albany, N. Y. -----	July 8, 1851.
Stoves, cooking -----	John F. Rathbone	Albany, N. Y. -----	July 8, 1851.

Stoves, cooking -----	Samuel W. Gibbs, assignor to Jagger, Treadwell, and Perry.	Albany, N. Y. -----	Jan. 21, 1851.
Stoves, cooking -----	Samuel A. House.	Mechanicsville, N. Y. -----	Feb. 4, 1851.
Stoves, cooking -----	S. H. Sailor, assignor to Warnick, Lie- brant, and Co.	Philadelphia, Pa. -----	Feb. 25, 1851.
Stoves, cooking -----	Dutee Arnold.	Providence, R. I. -----	April 15, 1851.
Stoves, cooking -----	John Abendroth	Port Chester, N. Y. -----	April 15, 1851.
Stoves, parlor -----	Joseph Pratt.	Boston, Mass. -----	July 8, 1851.
Stoves, parlor, plates of -----	Apollos Richmond, assignor to A. C Barstow & Co.	Providence, R. I. -----	July 15, 1851.
Stoves, plates of Franklin -----	John F. Rathbone.	Albany, N. Y. -----	July 8, 1851.
Table -----	Nathan Chapin	Syracuse, N. Y. -----	Sept. 30, 1851.
Tomb, cast-iron -----	H. K. Flinchbaugh	Conestoga, Pa. -----	June 22, 1851.
Umbrella-stands -----	Edward J. Delany, assignor to Heins & Adamson.	Philadelphia, Pa. -----	Feb. 18, 1851.
Water-coolers -----	William Burnett	Cincinnati, Ohio -----	July 8, 1851.



ALPHABETICAL LIST OF PERSONS TO WHOM PATENTS FOR INVENTIONS OR DISCOVERIES, AND FOR DESIGNS, HAVE BEEN GRANTED DURING THE YEAR 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Abbott & Lawrence. (See Smith & Brown, assignors.)			
	Abbott, S. R., <i>et al.</i> (See G. D. Sargent, assignor.)			
1044	Abendroth, William P.	Stove, cook's	Aug. 31, 1858	Design
20770	Abernethy, R. P., assignor to Union Cork Manufacturing Company.	Corks, machine for cutting	July 6, 1858	XXII.
20771	Abernethy, R. P., and M. M. Wombaugh	Corks, machine for cutting	July 6, 1858	XXII.
19116	Absterdam, John	Telegraphic cables, construction of	Jan. 19, 1858	VIII.
20534	Absterdam, John	Gas, apparatus for manufacturing	June 15, 1858	IV.
21543	Ackerman, C.	Lock	Sept. 21, 1858	II.
19822	Adair, J. V.	Harvester, corn	April 6, 1858	I.
21594	Adams, A.	Corn-sheller	Sept. 28, 1858	I.
21174	Adams, Calvin	Corn-sheller	Aug. 17, 1858	I.
22223	Adams, F. C., and J. Peckover	Stove, cooking	Dec. 7, 1858	V.
546	Adams, Isaac	Printing-press	April 20, 1858	Reissue.
22053	Adams, James. (See Watson, James F., assignor.)			
	Adams, John	Wash-boards	Nov. 16, 1858	XVII.
21238	Adams, Newton	Rope, machinery for making	Aug. 24, 1858	III.
22272	Adams, R. A.	Stencils	Dec. 14, 1858	XVIII.
21866	Adams, Sanford	Wire-riddles, tools for manufacturing	Oct. 26, 1858	II.
20314	Adams, Seth	Cock-valve	May 25, 1858	XI.
	Adams, Seth. (See Burnett, William, assignor.)			
	Adams, S. W., and B. B. Hill. (See Hill & Adams.)			
21055	Adams, W.	Cultivator	Aug. 3, 1858	I.
	Aeby, A. E., and F. L. Kidder. (See Kidder & Aeby.)			
22337	Ager, W.	Rice, mode of cleaning	Dec. 21, 1858	XIII.
21305	Agnew, John	Bale-hoops, coupling for	Aug. 31, 1858	XII.
22404	Ahl, Frederick	Boot-jack	Dec. 28, 1858	XXII.
19901	Aiken, Herrick	Awls and tools	April 12, 1858	II.

1001	Aiken, Herrick	Tool-box	May	11, 1858	Design.
20854	Aiken, N. P.	Knitting-machine	July	13, 1858	III.
22004	Aiken, W.	Knitting-machine	Nov.	9, 1858	III.
20398	Akers, Thomas P.	Boilers, steam, telephonic indicator for	June	1, 1858	VI.
21306	Akins, Henry S.	Plough, hillside	Aug.	31, 1858	I.
20397	Akins, John D.	Musical instruments	June	1, 1858	XVIII.
22152	Alberger, J. L.	Oils, kettle for trying	Nov.	30, 1858	III.
19178	Albertson, John R.	Planter, potato	Jan.	26, 1858	I.
20755	Allbrecht, Joseph, assignor to Charles J. Rulh	Acid, sulphurous, obtaining pure	June	29, 1858	IV.
20611	Albro, Henry.	Wharf, floating, revolving	June	22, 1858	IX.
21644	Alcorn, James, jr.	Furnaces, steam-boiler	Oct.	5, 1858	V.
19402	Alcott, A. N.	Apple-corer	Feb.	23, 1858	XVII.
21307	Alden, John B., and Edwin L. Gates	Hose, &c., machine for cleaning	Aug.	31, 1858	XI.
20316	Alexander, C. W.	Rifles, breech-loading	May	25, 1858	XIX.
19536	Alexander, Thomas J.	Sawing-machine	Mar.	9, 1858	XIV.
21175	Allen David	Washing-machine	Aug.	17, 1858	XVII.
20316	Allen, A. J., and W. S. Hudson.	Furnace-grates	May	25, 1858	V.
21400	Allen, Ethan	Fire-arm, revolving	Sept.	7, 1858	XIX.
22005	Allen, Ethan	Fire-arms, revolving	Nov.	9, 1858	XIX.
633	Allen, Ethan	Pistols and other fire-arms	Dec.	14, 1858	Reissue.
20612	Allen, F.	Brick-machine	June	22, 1858	XV.
20927	Allen, H.	Condenser, tube-joints for	July	20, 1858	VI.
21308	Allen, Horatio P.	Planter, cotton-seed	Aug.	31, 1858	I.
21476	Allen, John	Washing-machine	Sept.	14, 1858	XVII.
20768	Allen, John F.	Valve-gearing for steam-engines	June	29, 1858	VI.
20928	Allen, K. H.	Railroad rails, connecting the ends of	July	20, 1858	IX.
19975	Allen, N. E.	Rake, horse hay	April	20, 1858	I.
21401	Allen, R. L.	Harvester	Sept.	7, 1858	I.
19741	Allen, R. N.	Car axle-boxes, railroad	Mar.	23, 1858	X.
19331	Allen, T. F.	Cars, railway, mode of connecting the trucks of	Feb.	16, 1858	X.
19284	Allenden, John	Shoes, bags, &c., implement for holding open	Feb.	9, 1858	XVI.
21645	Allington, Silas	Gate	Oct	5, 1858	IX.
22006	Allis, Horace B.	Flour-cooler	Nov.	9, 1858	XIII.
Allstatter, R., and P. Black. (See J. M. Long, assignor.)					
Allyn, Y., and A. Hager. (See Hager & Allyn.)					
Alston, William J, et al. (See Lytle, Alston, & True.)					



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20026	Alter, David, and Samuel A. Hill	Distilling coal, &c, revolving retorts for	April 27, 1858	IV.
21309	Alter, Jacob A.	Locomotive-engines, scraper for removing sparks from the smoke-stack of.	Aug. 31, 1858	VI.
20463	Ambler, F. P., jr., assignor to F. P. Ambler & Sons.	Harness-saddles, construction of wooden saddletrees for.	June 1, 1858	XVI.
20613	Ambrose, George	Engine, reciprocating rotary	June 22, 1858	VI.
20687	Ames, H. O.	Evaporating vessels, arrangement of steam-coils in.	June 29, 1858	IV.
19332	Ames, Nathan, Samuel Green, <i>et al.</i> (See Donald McLean, assignor.)			
21056	American Book and Paper Folding Company. (See North, John, assignor.)			
	Ammen, Daniel	Lantern, signal	Feb. 16, 1858	VII.
	Anderson, A.	Steam-engines, governor for	Aug. 3, 1858	VI.
	Anderson & Chadwick. (See Chadwick & Anderson.)			
19902	Anderson, Charles F.	Seeding-machine	April 13, 1858	I.
	Anderson, John, William Toby, <i>et al.</i> (See Benjamin Pitcher, assignor.)			
22054	Andrews, A. T. and J. H.	Bomb-lance	Nov. 16, 1858	XIX.
	Andrews, J. K., and L. Matthews. (See Levi Matthews, assignor.)			
21239	Andrews, Solomon	Lamp burner, vapor	Aug. 24, 1858	V.
21310	Andrews, Solomon	Sewing-machine	Aug. 31, 1858	III.
21057	Angel, W. H., and M. Coffin	Wheat-separator	Aug. 3, 1858	I.
19285	Angell, Benjamin J.	Sewing-machine	Feb. 9, 1858	III.
22055	Annan, Alexander	Knife-sharpener	Nov. 16, 1858	XVII.
	Anthony, Alfred, and G. F. Wilson, <i>et al.</i> (See James M. Whiting, assignor.)			
21176	Appleton, James S.	Churn	Aug. 17, 1858	I.
	Area, H. A., <i>et al.</i> (See V. N. Mitchell, assignor.)			
	Arkerson & Kendrick. (See Kendrick & Arkerson.)			

21058	Armstrong, John J. and A. T.	Knife-sharpener	Aug.	3, 1858	XVII.
21077	Armstrong, John T.	Sawing-machine, cross-cut	Aug.	17, 1858	XIV.
21477	Armstrong, R. H., and W. Straw & Armstrong.)	Washing-machine	Sept.	14, 1858	XVII.
21867	Armstrong, W. T.	Washing-machine	Oct.	26, 1858	XVII.
21718	Arnall, William M., assignor to himself, O. P. Smith, and A. C. Jordan.	Barrels, machine for crozing, chamfering, and bevelling.	Oct.	5, 1858	XIV.
19475	Arndt, Jacob	Bellows	Mar.	2, 1858	XI.
20535	Arnett, W. D.	Car axle-boxes, from pedestals, disconnecting	June	15, 1858	X.
19537	Arnold, Alfred	Engines, rotary steam	Mar.	9, 1858	VI.
19228	Arnold, Francis	Hair in curl, ladies' clamp for holding	Feb.	2, 1858	XXI.
20981	Arnold, H. L.	Stone-sawing machine	July	27, 1858	XV.
22338	Arnold, Horace L.	Car seats and couches	Dec.	21, 1858	X.
22405	Arnold, James G.	Envelope, letter	Dec.	29, 1858	XVIII.
	Arnold, S. C. (See Isaac Rich, assignor.)				
	Ashcroft, E. H., et al. (See J. Jackman, jr., assignor.)				
	Ashcroft, Edward H. (See Franz Burckle.)				
	Ashmead, J. H., et al. (See Leroy White, assignor.)				
	Atkinson, S., and L. Crossman. (See Crossman & Atkinson.)				
20186	Atkins, George W.	Measurer, grain, self-regulating	May	11, 1858	VIII.
21402	Atwater, B.	Sewing-machine	Sept.	7, 1858	III.
21646	Atwater, Bryan	Trap, fly	Oct.	5, 1858	XXII.
19671	Atwater, James B.	Pump	Mar.	23, 1858	XI.
	Atwood, Anson. (See Bosworth, George S., assignor.)				
21806	Atwood, E. G.	Skirts, skeleton	Oct.	19, 1858	XXI.
19903	Atwood, J. E. and J. C. and O.	Sewing-machine	April	13, 1858	III.
22273	Atwood, James E.	Sewing-machine	Dec.	14, 1858	III.
21805	Atwood, L.	Oils, &c., extraction of volatile, from coal	Oct.	19, 1858	IV.
22406	Atwood, L.	Oils, pyrogenic, manufacture of	Dec.	28, 1858	IV.
22407	Atwood, Luther	Distillation, destructive, apparatus for	Dec.	28, 1858	IV.
22408	Atwood, Luther	Distillation of wood, &c., destructive, apparatus for	Dec.	28, 1858	IV.
	Ankney, P. J., and J. H. Grimsley. (See Grimsley & Ankney.)				
	Aultman, C., & Co. (See Lewis Miller, assignor.)				
	Austin, T. K., et al. (See Raymond & Robitaille, assignors.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21730	Austin, Thomas K.	Fire-arm, revolving	Oct. 12, 1858	XIX.
21589	Austin, William, assignor to himself and William Obodyke.	Teapots	Sept. 21, 1858	XVII.
19729	Averill, Damon R., assignor to himself and James F Davis.	Varnishes, composition for	Mar. 22, 1858	IV.
19064	Averill, L. B.	Stave machine	Jan. 12, 1858	XIV.
19976	Avery, Cyrus	Horse-power, gearing for	April 20, 1858	XIII.
22007	Avery, O. & Z. W.	Sewing-machine	Nov. 9, 1858	III.
	Avery, S., and C. D. Van Allen. (See Van Allen & Avery.)			
22396	Ayling, George C., assignor to himself and H. A. Ayling.)	Altitude, &c., instrument for measuring	Dec. 21, 1858	VIII.
	Aylsworth, T. D., and E. L. Hagar. (See Hagar & Aylsworth.)			
21403	Ayres, David C.	Harrows	Sept. 7, 1858	I.
21404	Babcock, A. G.	Planter, corn	Sept. 7, 1858	I.
21807	Babcock, A. G.	Seeding-machine	Oct. 19, 1858	I.
21110	Babcock, D.	Straw-cutter	Aug. 10, 1858	I.
19339	Babcock, J. K.	Railroad snow-ploughs	Feb. 16, 1858	IX.
21731	Babcock, Joseph M.	Stove, cook, hot-air	Oct. 12, 1858	V.
	Babecek, Nathan, and C. B. Cottrell. (See Cottrell, C. B., assignor.)			
	Babcock, S., <i>et al.</i> (See Cooley & Cooke, assignors.)			
21732	Babcock, W. H.	Window-blinds, method of adjusting	Oct. 12, 1858	IX.
	Batchelder, John, <i>et al.</i> (See Kennedy & Plummer, assignors.)			
617	Batchelder, John, assignor to Isaac M. Singer and Edward Clark.	Sewing-machine	Nov. 2, 1858	Reissue.
	Backus, Isaac, <i>et al.</i> (See Bates, R. H. N., assignor)			
	Bacon, F. M., and Joseph Fowler. (See Fowler & Bacon.)			

22324	Bacon, S. T. (See J. North, assignor.)	Table, extension.....	Dec.	7, 1858.....	XVII.
22339	Bader, Adolphus.....	Seeding-machine.....	Dec.	21, 1858.....	I.
20027	Badger, John.....	Lock.....	April	27, 1858.....	II.
	Baier, L.....				
	Bailey, F., and Josee Johnson. (See Johnson & Bailey.)				
19336	Bailey, J. B.....	Window-shades, rollers for.....	Feb.	16, 1858.....	XVII.
543	Bailey, J. B.....	Window-shades, rollers for.....	April	13, 1858.....	Reissue.
19963	Bailey, John A., assignor to James Horner and James Ludlum.	Rolling-mills.....	April	13, 1858.....	II.
20615	Bailey, L.....	Plane-irons, device for adjusting.....	June	22, 1858.....	XIV.
20855	Bailey, L.....	Spoke-shave.....	July	13, 1858.....	XIV.
21311	Bailey, L.....	Planes, bench, method of securing plane irons to the stocks of.....	Aug.	31, 1858.....	XIV.
20134	Bailey, L., and R. Thayer.....	Lamps.....	May	4, 1858.....	V.
	Bailey, S. A., and R. Wheeler. (See Wheeler & Bailey.)				
22340	Bailey, Thomas D.....	Pegging-jacks.....	Dec.	21, 1858.....	XVI.
21733	Bailey, Yarnal.....	Gas-burner.....	Oct.	12, 1858.....	V.
21178	Baird, James M.....	Car-seats, railroad.....	Aug.	17, 1858.....	X.
19229	Baker, Artemus.....	Baskets, splint, tool for manufacturing.....	Feb.	2, 1858.....	XXII.
22274	Baker, Daniel S.....	Wristband-fastener.....	Dec.	14, 1858.....	XXI.
	Baker & Grover, assignors. (See Grover & Baker.)				
19334	Baker, H. D.....	Churn.....	Feb.	16, 1858.....	I.
19010	Baker, Henry F.....	Planter, seed.....	Jan.	5, 1858.....	I.
	Baker, H. N., and H. M. Collier. (See Collier & Baker.)				
20539	Baker, John G.....	Glazier's pins, machine for cutting.....	June	15, 1858.....	XXII.
19476	Baker, Joseph.....	Cherries, machine for stoning.....	Mar.	2, 1858.....	XVII.
	Baker, Potter, & Grover. (See Blodgett, S. C., assignor, through N. Hunt.)				
19122	Baker, Samuel.....	Planter, seed.....	Jan.	19, 1858.....	I.
	Baker, W. R., and J. B. McCormick. (See McCormick & Baker.)				
	Baldwin & Bliss. (See Watson, John F., assignor.)				
	Baldwin & Co. (See Bliss, E., assignor.)				
	Baldwin & Co. (See Watson, John F.)				
21240	Baldwin, Frederick.....	Lathe for turning beaded work.....	Aug.	24, 1858.....	XIV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20403	Baldwin, M. W.	Watches, attachment for, to ascertain the time without looking at the watch.	June 1, 1858	VIII.
19011	Baldwin, S.	Spinning oakum.	Jan. 5, 1858	III.
22397	Baldwin, Samuel, assignor to Baldwin & Co.	Watch-faces	Dec. 21, 1858	VIII.
22153	Baldwin, Thomas C.	Curtain-fixtures	Dec. 1, 1858	XVII.
19808	Ball, Edward O., <i>et al.</i> (See Heneaze, Robert, assignor.)			
21933	Ball, George S., assignor to Benjamin Kuhns	Drills, seed.	Mar. 30, 1858	I.
20246	Ball, J.	Swords, method of hanging.	Nov. 2, 1858	XXII.
19977	Ball, Joseph E.	Hame-tugs, fastening for	May 18, 1858	XVI.
20614	Ball, L.	Life-boat	April 20, 1858	VII.
19675	Ball, L.	Cars from running off the track, preventing	June 22, 1858	X.
1060	Ball, Leverett.	Railroad rails	Mar. 23, 1858	IX.
19614	Ball, T., assignor to George W. Nichols	Statues of Henry Clay	Nov. 9, 1858	Design.
22049	Ball, Thomas C., assignor to A. S. Davis and H. C. Handerson	Latch for doors.	Mar. 23, 1858	II.
22056	Ball, Thomas C., assignor to himself and L. Bisco, A. S. Davis, K. Crossfield, Edward Edwards, and Sarah Green.	Car-wheels, railroad	Nov. 9, 1858	X.
20135	Ball, Thomas C.	Cradle, infants'	Nov. 16, 1858	XVII.
19335	Ballard, Charles.	Saws, band, device for sheltering from dust the lower carrying pulley of.	May 4, 1858	XIV.
19118	Baltzby, John W., and W. Hobson	Filtering apparatus	Feb. 16, 1858	XI.
20536	Baucker, G.	Reapers, hand.	Jan. 19, 1858	I.
21934	Bancker, Gerard, and A. Campbell.	Brick-machine	June 15, 1858	XV.
21106	Bancroft, N. W., assignor to himself and H. M. Proctor.	Motion, rotary, mechanism for transmitting.	Nov. 2, 1858	XIII.
19179	Banks, Joseph.	Butter-worker	Aug. 3, 1858	XVII.
19742	Banks, Joseph.	Plough.	Jan. 26, 1858	I.
20929	Banta, Jacob J.	Cultivator	Mar. 30, 1858	I.
20616	Buntz, Gideon	Knife-cleaner	July 20, 1858	XVII.
		Furnaces for heating steam-boilers, &c.	June 22, 1858	V.

19120	Bantz, Gideon, and Adrian V. B. Orr. (See Orr & Bantz.)
19180	Bapterosses, Jean Felix.
19464	Barden, John S. .... assignor to himself and Aaron W. Rockwood.
20399	Bargis, T. J., and J. E. Underwood. (See Underwood & Bargis )
20474	Barker, P. ....
	Baker, Peleg. ....
19539	Barlow, Charles E. ....
21808	Barlow, Nelson. ....
21935	Barlow, Nelson. ....
19337	Barnard, H. ....
19538	Barnard, Heman A. ....
19338	Barnard, Henry. ....
22154	Barnard, William B. ....
21179	Barnes, Charles L. ....
189	Barnes, Charles R. ....
20464	Barnes, E., assignor to E. Crane. ....
20930	Barnes, E. F. ....
20982	Barnes, E. F. ....
20617	Barnes, E. R. ....
19121	Barnes, Henry. ....
22216	Barnes, Henry, assignor to himself and N. G. Macrum.
19477	Barnes, Jethro W. ....
21464	Barnes, Stephen, assignor to himself, Henry S. Parsons, and Samuel Rowland.
	Barnes, T. H., <i>et al.</i> (See Lane, Jas. C., assignor.)
	Barnes, W. T., and J. S. Buell, assignors. (See Buell & Barnes )
20688	Barnes, W. T. ....

Buttons. ....	Jan.	19, 1858. ....	XXI.
Pumps, rotary. ....	Jan.	26, 1858. ....	XI.
Engine, steam oscillating. ....	Feb.	23, 1858. ....	VI.
Grain, machine for elevating, measuring, registering, and bagging.	June	1, 1858. ....	XIII.
Threshing-machine, machine for measuring, registering, and receiving grain direct from.	June	8, 1858. ....	I.
Plane, floor. ....	Mar.	9, 1858. ....	XIV.
Pots, coffee. ....	Oct.	19, 1858. ....	XVII.
Saw-gumner. ....	Nov.	2, 1858. ....	II.
Ore-washer. ....	Feb.	16, 1858. ....	II.
Wood of unequal lengths at once, mode of bending several pieces of.	Mar.	9, 1858. ....	XIV.
Gold-washer. ....	Feb.	16, 1858. ....	II.
Block, tackle. ....	Dec.	1, 1858. ....	VII.
Augers, method of securing the centre of the spindles of.	Aug.	17, 1858. ....	XIV.
Mill-stone dress for hulling rice. ....	Jan.	26, 1858. ....	Add'l imp't.
Railroad chairs. ....	June	1, 1858. ....	IX.
Telegraphing magnet easy of adjustment, combination of electro and permanent magnets to render.	July	20, 1858. ....	VIII.
Telegraphic-machine, self-adjusting and embossing	July	27, 1858. ....	VIII.
Railroad chair. ....	June	22, 1858. ....	IX.
Guns, lock of double-barrelled. ....	Jan.	19, 1858. ....	XIX.
Press, hay and cotton. ....	Dec.	1, 1858. ....	XII.
Wagons, manure. ....	Mar.	2, 1858. ....	X.
Brushes, manufacture of. ....	Sept.	7, 1858. ....	XVII.
Sewing-machines. ....	June	29, 1858. ....	III.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20318	Barnett, G. W .....	Wheels, driving, for portable steam-engines and agricultural implements, &c.	May 25, 1858.....	XIII.
20319	Barnett, George W .....	Boilers, steam.....	May 25, 1858.....	VI.
21868	Barnett, Samuel M .....	Scrubbing-machine .....	Oct. 26, 1858.....	XVII.
21809	Barney, John K.....	Gauge for contents of casks, &c.....	Oct. 19, 1858.....	XI.
20136	Barnum, Daniel.....	Engines, steam.....	May 4, 1858.....	VI.
22088	Barnum, Daniel, <i>et al.</i> (See Low, Joshua, assignor.)			
	Barnum, J. W., <i>et al.</i> (See Tyler, S. G., assignor.)			
	Barr, Daniel W.....			
	Barry, Thomas, and E. A. Tuttle. (See Tuttle & Barry.)			
19119	Barrett, E. D .....	Hoisting-machine.....	Nov. 9, 1858.....	XII.
	Barrett, O. D., and W. De Witt. (See De Witt & Barrett.)			
	Barrett, O. W. and E. E., <i>et al.</i> (See Morse & Hughes, assignors.)	Valves and passages in the cylinders of steam engines, arrangement of.	Jan. 19, 1858.....	VI.
20473	Barrett, S. M., R. S. Lee, and J. M. Waters .....	Washboard .....	June 8, 1858.....	XVII.
22341	Barrington, J. A .....	Harvesters.....	Dec. 2, 1858.....	I.
20475	Barrington, John A.....	Harvesters, raking attachment to .....	June 8, 1858.....	I.
20689	Barrowman, Moses.....	Plough, drain .....	June 29, 1858.....	I.
19678	Barrows, E., jr.....	Furnaces, hot-air, self-adjusting damper for.....	Mar. 23, 1858.....	V.
	Barry, Thomas, and E. A. Tuttle. (See Tuttle & Barry.)			
986	Barstow, A. C.....	Stoves .....	Jan. 19, 1858.....	Design.
1023	Barstow, A. C.....	Range fronts .....	July 6, 1858.....	Design.
1063	Barstow, A. C.....	Stoves, cooks' .....	Nov. 16, 1858.....	Design.

19823	Burstow, J. P , et al. (See Bates, R. H. N., assignor.)	Sewing-machine	April	6, 1858	III.
21734	Barstow, Samuel, et al (See Chichester, Lewis J., assignor.)	Closet, water	Oct.	12, 1858	IX.
20540	Bartholf, A.	Mills, grist, machine for gathering the toll in	June	15, 1858	XIII.
558	Bartholomew, Frederick H.	Fertilizers, machine for sowing	May	18, 1858	Reissue
22104	Bartholomew, J.	Refrigerator	Nov.	23, 1858	XXII.
	Bartle, Warren S.				
	Bartlett, Abel H.				
	Bartlett, Joseph W. (See Jackson, T. D., assignor.)				
	Bartlett, Lewis L (See Charles Hartwell, assignor.)				
21405	Bartlett, Louis D.	Sifters, coal or ashes	Sept.	7, 1858	V.
	Bartlett, N., and J. Wharton. (See Wharton and Bartlett)				
19333	Barton, Chester	Seeding-machine	Feb.	16, 1858	I.
20538	Barton, J.	House-bell	June	15, 1858	XVII.
22155	Barton, James	Tool for cutting key-seats in wheels and pulleys	Dec.	1, 1858	II.
20187	Bartoo, J.	Water-wheel	May	11, 1858	XI.
20678	Baschnagel, Francis, assignor to himself and the Beverly Rubber Company.	Rubber, restoring waste vulcanized	June	22, 1858	IV.
	Bastian, G. (See Benton, Behn, and Bastian.)				
	Batchelder, et al. (See Watson, John F.)				
19170	Batchelder, Asahel G., assignor to Hiram E. Pearson and Alden M. Butterfield.	Blind-fixtures, window	Jan.	19, 1858	IX.
	Batchelder, J M., and M. G. Farmer. (See Farmer and Batchelder.)				
26028	Batchelder, John M.	Inkstands	April	27, 1858	XVIII.
20604	Batchelder, W. W., assignor to William T. Townsend.	Gas-burners, argand	June	22, 1858	V.
22409	Batchelder, William W.	Lamp	Dec.	28, 1858	V.
19540	Batcheller, H. F.	Planters, hand corn	Mar.	9, 1858	I.
19978	Batchelor, Job	Saws, dressing	April	20, 1858	XIV.
20856	Bate, John J.	Kettles for rendering lard	July	13, 1858	V.
20386	Bateman, Horatio, assignor to William F. Batesman.	Lamp, vapor	May	25, 1858	V.
	Bates, Hardy, and Parkinson. (See Hardy and Parkinson, assignors.)				



*Patentees of inventions and designs, 1858.*

No.	Invention or discovery.	Invention or discovery.	Date.	Class.
1013	Bates, R. H. N., assignor to himself, Isaac Backus, and J. P. Barstow.	Stove-doors-----	June 8, 1858-----	Design.
19117	Battle, John A. M. (See Troost, Lewis, assignor.)	Churn-----	Jan. 19, 1858-----	I.
19277	Bauder, Michael L.	Furnaces for locomotives-----	Feb. 2, 1858-----	V.
22057	Bauman. (See Hersh, <i>et al.</i> )	Lock, safe-----	Nov. 16, 1858-----	II.
20690	Bayly, Obadiah J.	Cordage, machinery for braiding-----	June 29, 1858-----	III.
20691	Bazin, J. A.	Cordage, webbing and manufacturing braided-----	June 29, 1858-----	III.
19904	Bazin, J. A.	Reaping and mowing machines-----	April 13, 1858-----	I.
19615	Beach, Charles	Winnower, grain-----	Mar. 16, 1858-----	I.
19906	Beach, Henry H.	Sawing-machine-----	April 13, 1858-----	XIV.
22009	Beach, Moses S.	Paper, wetting, apparatus for-----	Nov. 9, 1858-----	XVIII.
22010	Beach, Moses S.	Printing-presses-----	Nov. 9, 1858-----	XVIII.
22011	Beach, Moses S.	Printing-presses, feeding out paper from-----	Nov. 9, 1858-----	XVIII.
19478	Beach, Waldren	Carriage-wheels, metallic-----	Mar. 2, 1858-----	X.
21478	Beadle, John L., and J. Stevens. (See Stevens Judd, assignor.)	Fire-arm, revolving-----	Sept. 14, 1858-----	XIX.
20692	Beals, Fordyce	Mills, grinding-----	June 29, 1858-----	XIII.
21810	Beardsly, B. A.	Paints, composition for-----	Oct. 19, 1858-----	IV.
20247	Beardsly, James H.	Gates, farm, method of opening and closing-----	May 18, 1858-----	IX.
19341	Beattie, William F. C.	Cigars, machinery for making-----	Sept. 16, 1858-----	XXII.
20541	Beauche, Louis	Gas, apparatus for manufacturing-----	June 15, 1858-----	IV.
21479	Beaumont, William	Skirts, ladies' hoop-----	Sept. 14, 1858-----	XXI.
21111	Beverdy, Samuel	Threshing and separating grain, machine for-----	Aug. 10, 1858-----	I.
21312	Becker, N. J., and J. M. Harvey	Looms for weaving skirt-fringe-----	Aug. 31, 1858-----	III.
22156	Beck, James	Planters, seed-----	Dec. 1, 1858-----	I.
19674	Beckwith, J. F., and A. G. Gage	Gun, walking-stick-----	Mar. 23, 1858-----	XIX.
	Beckwith, Robert E.			

21180	Bedgood, Thomas M.	Planters, corn	Aug.	17, 1858	I.
19616	Beebe, James W.	Hats, ventilating	Mar.	16, 1858	III.
20248	Beers, S. A.	Rail's, railroad, fastening	May	18, 1858	IX.
21241	Beers, S. A.	Railroad rails	Aug.	24, 1858	IX.
1005	Beesley, J., assignor to John S. Clark and Washington Harris.	Stove-doors	May	11, 1858	Design.
20975	Behn, Bastian, and Benton (See Benton, J. B., J. F. Behn, and G. Bastian.)	Soldering-iron	July	20, 1858	II.
19905	Behrens, H. J., assignor to C. F. Pomeroy	Winnowing-machines, chaff, screws for	April	13, 1858	I.
19907	Beidelman, George and Samuel, and J. Orange (See Orange and Beidelman.)	Pumps, double-acting force	April	13, 1858	XI.
20029	Belchamber, Alfred	Mill-stone dress	April	27, 1858	XIII.
20465	Bellinger, Franklin	Distilling turpentine, apparatus for	June	1, 1858	IV.
22342	Bellingrath, Leonard J., assignor to T. and W. McLaurin and James W. Strange.	Stoves	Dec.	21, 1858	V.
19405	Pelson, R. W.	Furniture, method of manufacturing	Feb.	23, 1858	XVII.
19340	Belter, John H.	Shafting, hangers for	Feb.	16, 1858	XIII.
21406	Bement, William B.	Railroad tracks, joints for	Sept.	7, 1858	IX.
19065	Bender, Edwin. (See Shedaker, Benjamin H., assignor)	Rails, T, joints for	Sept.	14, 1858	IX.
21406	Benedict, E. U.	Carriage tops	Jan.	12, 1858	X.
21480	Benedict, E. U.	Washing-machine	Jan.	26, 1858	XVII.
19065	Benedict, Newton	Tool handles, socket for	June	29, 1858	XIV.
19181	Benedict <i>et al.</i> (See DeWitt, John C., assignor.)	Shovels, cast iron fire	Oct.	12, 1858	Design.
20693	Bennett, Nicholas, assignor to David Parker	Twine box	July	20, 1858	XXII.
1056	Bennett, W.	Hay, machine for raking and loading	July	6, 1858	I.
20931	Bennett, William	Planters, seed	Aug.	10, 1858	I.
20772	Bennett, W. R., and C. Stover	Harrows	Aug.	10, 1858	I.
21112	Benton, J. B., J. F. Behn, and G. Bastian	Corn-sheellers	March	30, 1858	I.
21113	Berdan, A.	Tuyere, blacksmith's	Nov.	9, 1858	II.
19809	Berdan, A.	Sewing-machines	July	6, 1858	III.
22112	Becken, Peter, assignor to Jane Ann Bergen				
20773	Berrian, John M. and Cornelius A. (See Hiler Selah, assignor.)				
22112	Berry, H. S.				
20773	Berry, R. M.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22225	Berry, Robert M. ....	Sewing machines .....	Dec. 7, 1858 .....	III.
20618	Berry, Thomas .....	Harvester, bemp. ....	June 22, 1858 .....	I.
19743	Bertrand, C. E. ....	Sugar-mould carriage .....	March 30, 1858 .....	IV.
	Bess Redden, and H. Sloan, <i>et al.</i> (See Turner, Alexander, assignor )			
	Bess, Turner, and Sloan. (See Turner, Bess, & Sloan.)			
	Best, John, and J. B. Clow (See McMurry, John, assignor )			
22105	Bestwick, John, jr. ....	Fastener, sash. ....	Nov. 23, 1858 .....	II.
20400	Bett ley, A. ....	Fence, lattice, iron .....	June 1, 1858 .....	IX.
21735	Bettinger, Matthias, and A. Boos	Hinge .....	Oct. 12, 1858 .....	II.
	Bevan, L. L., and Daniel Zuern. (See Zuern & Bevan.)			
19066	Bevard, William .....	Barrel-head machinery, circular-cutting, method of connecting the bevelling knives in.	Jan. 12, 1858 .....	XIV.
	Beverly Rubber Company. (See Baschnagel, Francis, assignor.)			
	Beverly Rubber Company. (See Hall, Hiram L., assignor )			
21647	Biddle, Moses H. ....	Traps, animal, construction of .....	Oct. 5 1858 .....	XXII.
21544	Bidwell, S., assignor to New York Car and Steam-boat Gas Company.	Gas-regulator .....	Sept. 21, 1858 .....	IX.
21648	Bidwell, S. W. ....	Window-blind, rolling .....	Oct. 5. 1858 .....	IX.
20857	Bickford, D. ....	Window-sashes, spring-pulley for .....	July 13, 1858 .....	IX.
19479	Bickford, Dana .....	Pendulum, compound .....	March 2, 1858 .....	VIII.
19744	Bickford, Dana .....	Time-keepers, regulator for .....	March 30, 1858 .....	\ III.
21181	Bickford, L. ....	Sowing fertilizers, machine for .....	Aug. 17, 1858 .....	I.
	Bigelow & Bradley. (See Bradley & Bigelow )			
19824	Bigelow Brothers, <i>et al.</i> (See Watson, John F.)			
	Bigelow, E. ....	Castors, syrup .....	April 6, 1858 .....	XVII.
547	Bigelow, E. ....	Castors, syrup .....	May 4, 1858 .....	Reissue.
19673	Bigelow, George C. ....	Door-sill, self-adjusting .....	March 23, 1858 .....	IX.
20858	Bigelow, M. B. ....	Paper, machines for cutting .....	July 13, 1858 .....	XVIII.

19406	Billings, G. W.	Dovetailing tool.	Feb. 23, 1858	XIV.
19672	Bills, Henry A., and Stephen W. Wood	Printing press.	March 23, 1858	XVIII.
21736	Einkley, Samuel.	Drills, grain.	Oct 12, 1858	I.
20249	Bird, John, David Challiner, <i>et al.</i> (See Reigh- hard, Jacob, assignor.)	Hulling and threshing clover, machines for.	May 18, 1858	I.
19908	Birdsell, John C.			
20983	Birmingham Iron Foundry Company. (See Clemens, Andrew B.)			
21737	Bisco, L., <i>et al.</i> See Ball, Thomas C., assignor.)	Dredging-machine.	April 13, 1858	IX.
20774	Bishop, E. B.	Cars, railroad, coupling for.	July 28, 1858	X.
21590	Bishop, George S.	Car-couplings.	Oct. 12, 1858	X.
22226	Bishop, G. W.	Stones, machinery for gathering.	July 6, 1858	I.
19124	Bish p, Gilbert, assignor to Edward White.	Veneers, machine for cutting.	Sept. 21, 1858	XIV.
21738	Bishop, Robert H.	Sewing-machine.	Dec. 7, 1858	III.
21936	Bishop, James.	Railroad chair.	Jan. 19, 1858	IX.
	Bishop, Josiah.	Timekeepers, escapement for.	Oct. 12, 1858	VIII.
	Bissell, Levi.	Locomotive engines, trucks for.	Nov. 2, 1858	VI.
20030	Bs-ell, Lounsberry, & Co. (See Butler, Thomas B., assignor.)			
21869	Black, H. N.	Hullers, rice.	April 27, 1858	I.
19604	Black, James, assignor to Scott, Todd, & Co.	Harvesting-machines, grain discharging attach- ment to.	Dec. 26, 1858	I.
22058	Black, Josiah.	Steam, method of generating, in combination with atmospheric air as a motive power.	March 9, 1858	VI.
	Black, P. and Allstatter. (See Long, J. M., as- signor.)	Lath-machine.	Nov. 16, 1853	XIV.
21182	Black, William.	Plough.	Aug. 17, 1858	I.
19745	Blackman, S. G., and E. J. Manville. (See Man- ville & Blackman.)	Hulling and cleaning clover seed, machinery for.	March 30, 1858	I.
20542	Blackwell, J. V.	Stones, machine for crushing.	June 15, 1858	XV.
20031	Blackwell, S. M., <i>et al.</i> (See Culver, E., jr., as- signor.)	Furniture casters.	April 27, 1858	XVII.
19123	Blake, Eli W.	Nails, trunk, machinery for covering the heads of.	Jan. 19, 1858	II.
20775	Blake, Henry D.	Sewing-machines.	July 6, 1858	III.
	Blake, James P.			
	Blake, L. R.			
	Blake, Robert, and L. Button (See Button & Blake.)			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
1008	Blanchard, A. L.	Aquaria	June 1, 1858	Design.
21407	Blanchard, George	Closet, water	Sept. 7, 1858	IX.
19480	Blanchard, Thomas	Bending of shovel handles	Mar. 2, 1858	XIV.
19541	Blanchard, Thomas	Mils for reducing substances	Mar. 9, 1858	XIII.
19746	Blanchard, Thomas	Cigars	Mar. 30, 1858	XXII.
20137	Blanchard, Thomas	Wood, machine for bending	May 4, 1858	XIV.
21059	Blandy, H. and F. J. L.	Engines, steam	Aug. 3, 1858	VI.
19230	Blau, Hermann	Carpet-stretcher	Feb 2, 1858	XVII.
19966	Bliss & Baldwin. (See Watson, John F., assignor.)	Watch-cases	April 13, 1858	VIII.
628	Bliss, E., assignor to Baldwin & Co.	Watch-cases	Nov 23, 1858	Rei.sue.
20859	Bliss, Elihu, assignor to Baldwin & Co.	Door-plates	July 13, 1858	XXII.
20984	Bliss, J. W.	Plough	July 27, 1858	I.
20984	Bliven, S. R.	Sewing-machines	Sept. 7, 1858	III.
21465	Blodgett, S. C., assignor to G. B. Sloat & Co.	Sewing-machines	Oct. 12, 1858	Reissue.
613	Blodgett, Sherburne C., assignor (through N. Hunt) to O. B. Potter, W. O. Grover, and W. E. Baker.			
21870	Blondyn, A. C.	Car-seats	Oct. 26, 1858	X.
22059	Blood, Asa, jr.	Bee-hives	Nov. 16, 1858	I.
19401	Bloodworth, Elijah H.	Plough	Feb. 16, 1858	I.
19747	Boardman, Byron	Staples for blind-slats	Mar. 30, 1858	II.
	Boardman, Harris, <i>et al.</i> (See Spencer, Seth P., assignor.)			
19232	Bocage, Joseph W	Presses, jack-screw	Feb. 2, 1858	XII.
1030	Bodley & Lane. (See Smith & Lane, assignors ) Bodine, John F., assignor to himself and William H. and J. Alfred Bodine. Bodine & Potter. (See Borden, J , assignor to David Potter and Francis B. Bodine.)	Can-covers	Aug. 3, 1858	Design.
21313	Boernicke, C.	Umbrellas	Aug. 31, 1858	XXI.

21811	Bogert, Horatio. (See Bradford, Hezekiah, assignor.)	Gates, farm, mode of opening and closing.	Oct. 19, 1858.	IX.
20401	Bogert, Horatio. (See Perry & Fitzgerald, assignors.)	Photographic cameras, plate-holders for	June 1, 1858.	XVIII.
19481	Boggs, W. T.	Coal, machine for breaking.	Mar. 2, 1858.	V.
20619	Bolton, Aquila	Screw-drivers, handle for.	June 22, 1858.	II.
21183	Bond, Oliver	Steam trip-hammers, operating.	Aug. 17, 1858.	VI.
20250	Bonn, John H. (See Schleier, Charles S., assignor.)	Shot, making.	May 18, 1858.	XIX.
21545	Bonney, J. S., and C. W. Willard	Brick-machine	Sept. 21, 1858.	XV.
19964	Boos, A., and M. Bettinger. (See Bettinger & Boos.)	Jars, preserving.	April 13, 1858.	XVII.
20032	Booth, A.	Eggs, beating, churning, and the like processes, apparatus for	April 27, 1858.	XVII.
19125	Booth, John	Ploughs	Jan 19, 1858.	I.
20860	Booth, R. W. (See Knight, Judson, assignor.)	Hulling rice, machine for.	July 13, 1858.	I.
20694	Borden, J., assignor to David Potter and Francis B. Bodine.	Planters, cotton-seed.	June 29, 1858.	I.
19979	Boorman, W.	Sewing-machine	April 20, 1858.	III.
21863	Borum, Samuel R., and William M. McClean	Iron, cast, manufacturing car-wheels of.	Oct. 19, 1858.	III.
522	Bossard, J. S.	Stoves, air-tight.	Jan. 19, 1858.	Reissue.
21314	Boston Locomotive Works. (See Bayley, O. W., assignor.)	Seeding machines	Aug. 31, 1858.	I.
201	Bostrom, E. T.	Watchmakers' lathes, polishing apparatus for.	June 8, 1858.	Add'l imp't.
22227	Bosworth, C. F.	Washing-machine	Dec. 7, 1858.	XVII.
20387	Bosworth, George S., assignor to Anson Atwood.	Pipe, machine for cutting.	May 25, 1858.	II.
	Bosworth, Zephaniah, assignor to James M. McKinlay.			
	Bottoms, Thomas J.			
	Bottoms, Thomas J., and James A. Bullock. (See Bullock & Bottoms.)			
	Bottum, J. M.			
	Bowen, Jesse			
	Bower, Oliver P., et al. (See Hamilton, G. W.)			
	Bowers, W., and J. G. Goshon. (See Goshon & Bowers.)			
	Bowes, M., assignor to himself and George B. Waterhouse.			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19231	Bowker, Sewall H.	Bonnet-frames, machine for forming	Feb. 2, 1858	III.
20033	Bayce, John A.	Vehicles, attaching shafts to	April 27, 1858	X.
22275	Boyd, A. H.	Sewing-machines	Dec. 14, 1858	III.
19171	Boyd, Amos H., assignor to Oliver D. Boyd	Sewing-machines	Jan. 19, 1858	III.
19730	Boyd, Amos H., assignor to Samuel F. Chase	Shoe-peg machine	Mar. 23, 1858	XVI.
20016	Boyd, Amos H., assignor to Samuel F. Chase	Wooden dowel-pins, machine for making	April 20, 1858	XIV.
19233	Boyd, David M.	Shingle-machine	Feb. 2, 1858	XIV.
20695	Boyd, John T.	Cloth, machines for turning selvages in	June 29, 1858	III.
19067	Boyd, Joseph F.	Sails, reefing	Jan. 12, 1858	VII.
20402	Boyd, S. (See Knight, Judson, assignor)			
20320	Boyd, W.	Signals, semaphoric mechanism for operating	June 1, 1858	VIII.
19286	Boyden, O. S., and M. C. Frederick	Composition for varnishing leather	May 25, 1858	IV.
19825	Byers, William	Pumps	Feb. 9, 1858	XI.
20476	Brabyn, John L.	Traps for animals	April 6, 1858	XXII.
21546	Braden, J. A.	Lock	June 8, 1858	II.
638	Braden, Joseph A.	Shears	Sept. 21, 1858	II.
612	Braden, Joseph A.	Shears	Dec. 28, 1858	Reissue.
20756	Bradfield, Edward	Bolting flour	Oct. 12, 1858	Reissue.
	Bradford, Hezekiah, assignor to Horatio Bogert	Ore-separator	June 29, 1858	II.
	Bradford, L. H., and James A. Cutting. (See Cutting & Bradford)			
	Bradley, W. L. & N. L., <i>et al.</i> (See Hubbard, G. W., assignor.)			
20190	Bradley, William	Warps, dressing and sizing	May 11, 1858	III.
213	Bradley, William	Warps, dressing and sizing, machinery for	Dec. 21, 1858	Add'l imp't.
22410	Bradley, William A., and Jacob Bigelow	Fuel, artificial, manufacture of	Dec. 28, 1858	V.
19407	Brady, Elijah	Stone-dressing machine	Feb. 23, 1858	XV.
21184	Brady, George H. (See Lyon & Brady)			
	Brady, J. P.	Mill-pick holders	Aug. 17, 1858	XIII.
19012	Bragg, Isaac W. (See Cope & Bragg)			
	Branch, John L., Isaac, and Daniel W.			
	Brandebery, Louis. (See Brauer, Louis, assignor.)	Car-brake, railroad	Jan. 5, 1858	X.

20986	Brastow, George O , et al. (See Gray, Joshua, assignor.)	Omnibus-register	July	27, 1858	X.
19278	Brauer, Louis	Telegraphic cables, apparatus for paying out	Feb.	2, 1858	VIII.
21060	Brandebury and Joseph B. Stewart.	Removing submarine deposits, method of	Aug.	3, 1858	IX.
19342	Brazelton, E	Powder-flask	Feb.	16, 1858	XIX.
21812	Bre kenridge, J. H.	Nails, wrought manufacture of	Oct.	19, 1858	II.
21481	Breden, Otis	Skirting materials, manufacture of	Sept.	14, 1858	III.
19826	Bredt, Ernest	Mills, grinding	April	6, 1858	XIII.
19343	Breinig, David E.	Chair, rotating, blast producing	Feb.	16, 1858	XVII.
199	B eisach, L. R	Chair, rotary, blast producing	June	1, 1858	Add'l imp't.
22343	Breisach, L R	Roofing, composition for	Dec.	21, 1858	IX.
20757	Bremmer, C. A.	Gun-lock, double acting	June	29, 1858	XIX.
21242	Brey, E., assignor to himself and J. S. Swartley	Spinning-mules	Aug.	24, 1858	III.
19403	Brickill, J H.	Cable-stoppers	Feb.	23, 1858	VII.
21937	Bridge, William H.	Leather straps, tool for chamfering	Nov.	2, 1858	XVI.
20321	Bridger, James	Sounding-apparatus	May	25, 1858	VII.
	Bridwell, Richard F				
	Briggs, Hoover, Sloan, and Smith. (See Sloan, Smith, Hoover, & Briggs )				
19344	Briggs, Albert D	Harvesters	Feb.	16, 1858	I.
20987	Briggs, Albert D	Bridges, truss, bearing-blocks of	July	27, 1858	IX.
22106	Briggs, John C.	Bridges, truss	Nov.	23, 1858	IX.
1053	Briggs, Joseph H. (See Denham & Briggs.)				
20034	Briggs, Martin	Fences, cast-iron	Oct.	5, 1858	Design.
22060	Brigham, Dennis	Evaporating brine, apparatus for	April	27, 1858	IV.
19909	Briukerhoff, John P.	Spoons, machine for making	Nov.	16, 1858	II.
21547	Brinley, Thomas E C	Ploughs	April	13, 1858	I.
20238	Brinley, Thomas E C	Ploughs, press and drill	Sept.	21, 1858	I.
	Brocksieper & J. B Sargent, assignor to Joseph B. Sargent.	Fastener, sash	May	11, 1858	II.
20477	Broderick, William. (See Burnett & Broderick.)	Boilers, steam, apparatus for supplying water to	June	8, 1858	VI.
20017	Brodie, George	Reaping-machines	April	20, 1858	I.
20251	Brokaw, Child, & Warder. (See Harding, Thomas, assignor )	Reaping and mowing machines	May	18, 1858	I.
	Brokaw, J. W., assignor to Warder, Brokaw, & Child.				
	Brokaw, J. W , assignor to Warder, Brokaw, & Child.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21533	Brokaw, J. W., assignor to Warder, Brokaw, & Child.	Harvesters, guard fingers for-----	Sept. 14, 1858-----	I.
559	Bromwell, William. (See Holzer, Charles F., assignor.)			
21061	Bronson, Austin-----	Stoves, cooking-----	May 18, 1858-----	Reissue.
20776	Brooks, Aaron-----	Crank, substitute for the-----	Aug. 3, 1858-----	XIII.
22336	Brooks, E, and G. Walker-----	Fire-arm, breech-loading-----	July 6, 1858-----	XIX.
	Brooks, Olive Ann, administratrix of Lebbius Brooks, deceased.	Straw cutter-----	Dec. 14, 1858-----	I.
22344	Broughton, John-----	Engines, steam, cut-off gear for-----	Dec. 21, 1858-----	VI.
20985	Brower, A-----	Cement, water-proof-----	July 27, 1858-----	IV.
20322	Brower, W. G-----	Ice, machine for hoisting-----	May 25, 1858-----	XXII.
19127	Brown & Smith, assignors to North, Chase, & North (See Smith & Brown, assignors ) Brown & Smith, assignors to McDowell & Co. (See Smith & Brown.)			
	Brown, A. D-----	Furniture, construction of-----	Jan. 19, 1858-----	XVII.
20543	Brown, A, and L. Higgins. (See Higgins & Brown.)			
22061	Brown, Alanson-----	Quilting frame-----	June 15, 1858-----	XVII.
	Brown, Azro-----	Shoe-peg machine-----	Nov. 16, 1858-----	XVI.
19617	Brown, B. F. (See Brown E. L, assignor to B F. Brown.)			
20191	Brown, C B-----	Drills, see l-----	Mar. 16, 1858-----	I.
	Brown, C B-----	Harvesters-----	May 11, 1858-----	I.
22262	Brown, C. B., and D. J. Lake. (See Granger, W. J., assignor) Brown, C. W-----	Tonguing and grooving machine-----	July 28, 1858-----	Extension.
20679	Brown, Cyriel E, assignor to himself, John Tenney, and John Rhodes.	Spindles for throstle spinning-----	Dec. 7, 1858-----	III.
19182	Brown, E. L., assignor to B. F. Brown-----	Vault covers, safety-----	June 22, 1858-----	IX.
	Brown, Edmund-----	Pepper boxes, air-tight-----	Jan. 26, 1858-----	XVII.

	Planters, seed	Feb. 10, 1858	Reissue.	
526	Brown, George W. Brown, H. (See Smith, Brown, & Sailor, as signors.) Brown, H. (See Smith & Brown, assignors to Abbott & Lawrence.) Brown, Harvey Brown, Harvey Brown, Harvey Brown, Henry H., <i>et al.</i> (See Farson, Enoch S, assignor.) Brown, Hiram W Brown, J. S., assignor to himself and Joseph Kent. Brown, J. S., assignor to himself and Joseph Kent. Brown, James R. Brown, Job Brown, John A. Brown, R. J. Brown, Robert Brown, Robert J. Brown, S. R. Brown, Samuel, jr. (See Farrington & Brown, jr., assignors.) Brown, Timothy Brown, Thomas W. (See Reynolds, Edward, as signor.) Brown, W Brown, Wightman, and John F. Smith. (See Smith & Brown.) Brown, William Brown, William G. (See Sawyer, Robert, as signor.) Browne, Albert G., <i>et al.</i> (See Gray, William H., assignor.) Browne, John H Bruce, David, jr. Bruce, George Bruce, George	Churn Sawing-machine, rotary Sawing-machine, endless, sectional  Gins, cotton Ovens Stoves  Pipe tongs Measure, grain Planters, seed Mills, flouring Coffee, apparatus for roasting Fence, portable Sash-holder  Metallic cheese-hoops, casting  Churn Washing-machine  Skins, artificial, manufactory of Type-casting machines Types Types, set of printing	April 6, 1858 June 29, 1858 Sept. 14, 1858  Mar. 23, 1858 April 13, 1858 June 1, 1858  Dec. 1, 1858 Dec. 28, 1858 Jan. 19, 1858 Aug. 3, 1858 April 6, 1858 Aug. 31, 1858 June 15, 1858  Mar. 23, 1858  May 11, 1858 July 20, 1858  March 9, 1858 June 30, 1858 Jan. 19, 1858 May 25, 1858	I. XIV. XIV.  III. XVII. V.  II. VIII. I. XIII. XVII. IX. II.  II.  I.  XVII.  XVI. Extension. Design. Design.
19828				
20696				
21482				
19679				
19965				
20466				
22157				
22411				
19126				
21062				
19827				
21315				
20544				
19677				
20189				
20932				
19542				
985				
1006				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
1014	Bruce, George	Types, printers'	June 15, 1858	Design.
1033	Bruce, George	Types, printers'	Aug. 10, 1858	Design.
1054	Bruff, Richard P., and Charles and G. A. Seaver	Marks, trade	Oct. 5, 1858	Design.
21316	Brumfield, O. H. S.	Drills, seed	Aug. 31, 1858	I.
19676	Bruns, Adolphus	Carriages, &c., securing the wheels of	March 23, 1858	X.
20545	Brush, A. G.	Churns, operating	June 15, 1858	I.
22158	Bryant, Henry, and R. D. O. Smith	Photographic plate shield	Dec. 1, 1858	XVIII.
601	Bryant, Joel	Ship-board, hoisting winches for	Sept. 21, 1858	Reissue.
22159	Bryant, Joel	Scissors	Dec. 1, 1858	XXI.
21018	Bryden, E. O.	Drills, wheat	July 27, 1858	I.
20620	Bryent, assignor to Daniel D. Badger	Railroad track and cast-iron pavement combined	June 22, 1858	IX.
1063	Bryson, R.	Harvesters, grain and grass	Aug. 3, 1848	I.
19482	Buchanan, Andrew	Paddle-wheels	March 2, 1858	VII.
21938	Buchanan, J. H.	Stoves	Nov. 2, 1858	V.
20546	Buchannan, C. S.	Boilers, rotary, mode of heating	June 15, 1858	V.
19234	Bucklin, Moses	Cultivator teeth	Feb. 2, 1858	I.
527	Buckman, Ira	Gun walking-stick	Feb. 16, 1858	Reissue.
21230	Buel, J. S., and W. T. Barnes, assignors to J. Forsyth, R. D. Rockwell, V. M. Rice, and W. T. Barnes.	Sewing-machines	Aug. 17, 1858	III.
19810	Bulkley, H. C., assignor to James M. Ross	Car wheels, railroad	Mar. 30, 1858	X.
21185	Bulkley, H. G.	Heating apparatus, steam	Aug. 17, 1858	V.
19980	Bullard, Charles H. (See Gordon, Thos., assignor.)	Sleds, runners of	April 20, 1858	X.
22345	Bullard, Silas	Harvesters	Dec. 21, 1858	I.
21317	Bullock, Chester	Presses, cotton	Aug. 31, 1858	XII.
21591	Bullock, James A., and Thomas J. Bottoms	Printing presses, automatic paper-feeder for	Sept. 21, 1858	XVIII.
20861	Bullock, William, assignor to Geo. W. Taylor	Hides and leather, machine for dressing	July 13, 1858	XVI.
	Bumgarner, J. R., and L. White			
	Bumgarner & White. (See White, L., and J. T. Bumgarner.)			
21871	Bump, James H.	Churns	Oct. 26, 1858	I.
21813	Bunce, Benjamin	Valves, cut-off, for steam engines	Oct. 19, 1858	VI.

20323	Bunce, J. T.	Lathes	May	25, 1858	XIV.
21872	Bunce, William	Splints, extension	Oct.	26, 1858	XX.
21595	Bunsen, George C., and Cyrus Roberts	Seeding-machines	Sept.	28, 1858	I.
20862	Burbank, A.	Propeller for canal boats	July	13, 1858	VII.
19731	Burbank, John A., and Thomas Dugdale. (See Dugdale, Thomas A., assignor.)	Gauges, steam	Mar.	23, 1858	VI.
193	Burckle, Franz, assignor to Edward H. Ashcroft.	Mills, cutting flour	Mar.	9, 1858	Add'l imp't.
20138	Burdick, F. & L.	Hulling rice, machines for	May	4, 1858	I.
20933	Burdine, A. H.	Saws, gin, machinery for sharpening	July	20, 1858	II.
21483	Burdine, A. H.	Saw filer	Sept.	14, 1858	II.
19068	Burghart, William	Guns, needle	Jan.	12, 1858	XIX.
21114	Burk, N.	Leather into bales, machines for rolling	Aug.	10, 1858	XVI.
22013	Burke, Edmund, <i>et al.</i> (See Turner, Josiah, assignor.)	Ploughs	Nov.	9, 1858	I.
20478	Burket, George	Bedstead fastenings	June	8, 1858	XVII.
19618	Burling, Benjamin	Life preserving buoy	Mar.	16, 1858	VII.
21862	Burlingame, Stephen S., assignor to himself and William Taylor.	Lock, bank	Oct.	19, 1858	II.
21318	Burnell, Levi.	Pump, rotary	Aug.	31, 1858	XI.
211	Burnell, Levi	Pump, rotary	Dec.	14, 1858	Add'l imp't.
22160	Burnet, Serrington S., and William Broderick	Sewing-machines	Dec.	1, 1858	III.
21649	Burnett, William	Pencil sharpener, slate	Oct.	5, 1858	XVIII.
19400	Burnett, William, assignor to Seth Adams.	Gauge, steam pressure	Feb.	16, 1858	VI.
20841	Burnham, A., assignor to himself and Jas. M. Cook.	Railway bridge signalizer	July	6, 1858	IX.
21939	Burnham, C. E.	Hinge, gate	Nov.	2, 1858	II.
21243	Burns, D. H., and A. Lapham. (See Lapham & Burns.)	Addometer	Aug.	24, 1858	VIII.
20547	Burns, J.	Seeding-machines	June	15, 1858	I.
21243	Burnside, S.				
20547	Burr, Condit, Swift, Barnum, & Carr. (See Frost & Monroe, assignors.)				
	Burr, Samuel J., and H. F. Read. (See Read, H. F., assignor.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20035	Burrall, Thomas D.	Mowing-machines	April 27, 1858	I.
20139	Burridge and Post	Car couplings, railroad	May 4, 1858	X.
21940	Burson, W. W.	Harvester, raking attachment to	Nov. 2, 1858	I.
19408	Burt, George E., and George F. Wright	Horse powers, &c., wheel and axle attachment of	Feb. 23, 1858	XIII.
22161	Burt, Henry	Eggs, apparatus for assorting	Dec. 1, 1858	XVII.
	Burton, Charles E., <i>et al.</i> (See Reed, Henry G., assignor.)			
19069	Burton, J. D.	Bureau and washstands, construction of	Jan. 12, 1858	XVII.
20621	Burton, J. D.	Refrigerator	June 22, 1858	XVII.
20988	Burtis, P. T.	Gasometers, method of counterpoising	July 27, 1858	IV.
21064	Bush, W.	Fence, metallic	Aug. 3, 1858	IX.
20605	Bussell, E. T., assignor to Wambaugh, Brothers, & Co.	Cultivators, rotary	June 15, 1858	I.
19183	Bussell, Erastus T.	Power, machinery for obtaining and preserving, from trains while passing railway stations.	Jan. 26, 1858	XIII.
21814	Bussell, Erastus T., and Joseph Smith	Gauge, liquid	Oct. 19, 1858	XI.
20697	Butcher, W. A.	Coating metallic surfaces	June 29, 1858	IV.
19345	Butler, Derwin, E.	Musical instruments, device for cutting key-boards for.	Feb. 16, 1858	XVIII.
22107	Butler, Derwin E.	Sawing machines, felloe, devices for clamping and feeding the bolt in.	Nov. 23, 1858	XIV.
21115	Butler, F. M.	Chimneys, wind-guard for	Aug. 10, 1858	V.
22151	Butler, J. M.	Wells, apparatus for boring	Nov. 23, 1858	IX.
19235	Butler, Thomas B.	Cloth, felt, mode of forming the bat for making	Feb. 2, 1858	III.
21116	Butler, Thomas B.	Wool, &c., operating the teeth of cylinders for burring.	Aug. 10, 1858	III.
21164	Butler, Thomas B., assignor to Lounsbury, Bissell, & Co.	Felting, machinery for forming bats for	Aug. 10, 1858	III.
	Butler, W. H., and Valentine. (See Gale, W. S., assignor.)			
21319	Butler, W. S.	Shears, manufacturing	Aug. 31, 1858	II.
20479	Butter, John	Mowing-machine	June 8, 1858	I.

19483	Butterfield & Pearson. (See Batchelder, Asahel, assignor.)	Harvester -----	Mar.	2, 1858	I.
22162	Butterfield, J. S. -----	Fire-engine -----	Dec.	1, 1858	V.
19404	Button, Lyssander, and Robert Blake -----	Planters, seed -----	Feb.	23, 1858	I.
19910	Butts, L. A. -----	Car seats, railroad -----	April	13, 1858	X.
21320	Buzzell, David -----	Chair, recumbent -----	Aug.	31, 1858	XVII.
21794	Buzzell, David -----	Match cards, rack for holding -----	Oct.	12, 1858	XXII.
21650	Byam, E. G. and B. E. P., assignors to E. and E. G. Byam, and S. A. Carlton.	Propeller, screw -----	Oct.	5, 1858	VII.
20989	Byrne, Oliver, and J. G. Elliot -----	Safes, plates for burglar proof -----	July	27, 1858	V.
554	Cady, J. L., assignor to J. B. and W. W. Cornell & Co.	Seeding-machine -----	May	11, 1858	Reissue.
21321	Cahoon, C. W., assignor to J. B. Cahoon and D. H. Furbish.	Printers' composing-sticks -----	Aug.	31, 1858	XVIII.
20549	Calhoun, Alexander -----	Kilns, lime -----	June	15, 1858	XV.
22014	Callins, G. W., and H. White -----	Pressing tobacco, machinery for -----	Nov.	9, 1858	XII.
21548	Calvert, Francis A., and Charles G. Sargent. (See Sargent & Calvert.)	Truss-pads -----	Sept.	21, 1858	XX.
20760	Cameron, George L. (See Moore & Cameron.)	Rectifying, apparatus for -----	June	29, 1858	IV.
21244	Cameron, William -----	Cars, railroad, coupling for -----	Aug.	24, 1858	X.
21173	Campbell, A., and Gerard Bancker. (See Bancker & Campbell.)	Gilding, machine for preparing frames for -----	Aug.	10, 1858	XVIII.
21484	Campbell, C. -----	Printing-presses -----	Sept.	14, 1858	XVIII.
22062	Campbell, Ethan, assignor to Henry Thayer.	Hay fed to stock, device for saving the seed from.	Nov.	16, 1858	I.
20548	Campbell, J., V. B. Lighthizer, and P. Shannon	Billiard-tables, pocket-supporters for -----	June	15, 1858	XXII.
22263	Campbell, J. W. -----	Billiard-table cushion -----	Dec.	7, 1858	XXII.
19346	Campbell, James A -----	Boats, propelling canal -----	Feb.	16, 1858	VII.
22346	Campbell, R. A -----	Propeller for life-boats -----	Dec.	21, 1858	VII.
20018	Campbell, William, John M. Smith, et al. (See Weatherhead & Henry, assignors.)	Smoothing and polishing irons -----	April	20, 1858	XVII.
21409	Came, J. E., and L. Haven -----	Chairs, cane-seats for -----	Sept.	9, 1858	XVII.
20467	Came, John E., assignor to himself and James E. Came.	Planters, corn -----	June	1, 1858	I.
21815	Came, John E., assignor to himself and James E. Came.	Carpet-sweepers -----	Oct.	19, 1858	XVII.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21485	Carey, Joseph C.	Lantern attachment to caps.	Sept. 14, 1858.	V.
19491	Carhart, Peter S.	Fence, field.	Mar. 2, 1858.	IX.
21549	Carhart, Peter S.	Fence, portable field.	Sept. 21, 1858.	IX.
20759	Carhart, S., & W. Moore, assignors to themselves and J. H. McWilliams.	Fastener, sash.	June 29, 1858.	II.
19484	Carley, Benjamin.	Valves, steam, eccentric for operating.	Mar. 2, 1858.	VI.
19619	Carlisle, Charles, and Leonard Worcester.	Planing blind slats, machine for.	Mar. 16, 1858.	XIV.
19236	Carlton, S. A., <i>et al.</i> (See Byam & Parkhurst, assignors.)	Brick-machines.	Feb. 2, 1858.	XV.
20324	Carnell, Charles.	Lamp burners, vapor.	May 25, 1858.	V.
21651	Carpenter, Daniel H.	Saws, circular, deflecting plates of.	Oct. 5, 1858.	XIV.
20990	Carpenter, J. D. C.	Sewing-machines.	July 27, 1858.	III.
19132	Carpenter, L.			
	Carpenter, Luman, & D. Wheeler. (See Wheeler & Carpenter.)			
	Carpenter, S. D.	Electro-magnetic batteries to car-brakes, application of.	Jan. 19, 1858.	VIII.
20252	Carpenter, Samuel.	Time-keepers, escapement for.	May 18, 1858.	VIII.
20141	Carpenter, T.	Nails, horse-shoe, machine for making.	May 4, 1858.	II.
20480	Carpenter, W. B.	Ornaments to the car, mode of attaching.	June 8, 1858.	XVIII.
	Carr, Condit, Swift, Barnum, & Burr. (See Frost & Monroe, assignors.)			
19013	Carr, William S.	Cocks, supply.	Jan. 5, 1858.	XI.
20142	Carr, William S.	Closet, water.	May 4, 1858.	IX.
20550	Carr, William S.	Basins, water-closet, attachment of pipes to.	June 15, 1858.	XVII.
20863	Carrier, C. (See Crozier & Carrier.)			
21739	Carrier, J. P.	Chair, rocking.	July 13, 1858.	XVII.
19485	Carrington, C. H. & S. E.	Cultivator.	Oct. 12, 1858.	I.
	Carter, Henry.	Bolt-machine.	March 2, 1858.	II.
	Carver, Eleazor.	Gins, cotton.	Dec. 27, 1858.	Extension.

623	Carver, Phelps, & Lown. (See Richmond & Pittock, assignors.)	Planter, seed.....	Nov.	16, 1858.....	Reissue.	I.
22228	Case, Jarvis.....	Planters, seed.....	Dec.	7, 1858.....		
	Case, Jarvis, assignor to himself and William Baldwin.					
	Case, Philip. (See Whitney, Chauncy B., assignor.)					
20622	Case, S. C.....	Car-seats and berths, railroad.....	June	22, 1858.....	X.	
19911	Cassell, Henry.....	Washing-machine.....	April	13, 1858.....	XVII.	
20698	Casselli, Giovanni.....	Telegraph, pantographic.....	June	29, 1858.....	VIII.	
551	Castle, O. L.....	Arithmometer for adding.....	May	11, 1858.....	Reissue.	
21941	Castle, O. L.....	Arithmometer for addition.....	Nov.	2, 1858.....	VIII.	
19070	Castle, S. P.....	Stump-extractors.....	Jan.	12, 1858.....	IX.	
19128	Cavett, Edwin P.....	Sawing lumber, device for adjusting two circular saws to the same plane in.	Jan.	19, 1858.....	XIV.	
20253	Cawthra, Joseph.....	Corn husker.....	May	18, 1858.....	I.	
20404	Chadwick, W. P.....	Mantle-bar.....	June	1, 1858.....	V.	
21942	Chadwick, William, and S. J. B. Anderson.....	Railroad ditching-machine.....	Nov.	2, 1858.....	IX.	
20325	Chafee, V. M.....	Harrow.....	May	25, 1858.....	I.	
19347	Chaffee, Edwin M.....	Mat, door, India rubber.....	Feb.	16, 1858.....	XVII.	
21793	Chaffee, S. B., for himself and as administrator of S. M. Chaffee.	Looms for weaving hair-cloth.....	Oct.	12, 1858.....	III.	
	Challiner, David. (See Reighard, Jacob H., assignor.)					
	Chalmers, Gates, & Fraser. (See Gates, Fraser, & Chalmers.)					
19543	Chamberlin, C. A.....	Mining coal, &c., machine for.....	March	9, 1858.....	IX.	
21817	Chandler, J.....	Iron, sheet, manufacture of.....	Oct.	19, 1858.....	II.	
19620	Chandler, T. A.....	Plane, joiners' bevelling.....	March	16, 1858.....	XIV.	
20036	Chapin, P.....	Screws, machine for cutting.....	April	27, 1858.....	II.	
22108	Chapman, H. E.....	Leather, machine for splitting.....	Nov.	23, 1858.....	XVI.	
22229	Chapman, Henry E.....	Car-brakes, railroad.....	Dec.	7, 1858.....	X.	
21065	Chapman, J.....	Motion, converting reciprocating into rotary.....	Aug.	3, 1858.....	XIII.	
	Chapman, J. E. (See Reed & Chapman.)					
22470	Chapman, Joseph L., assignor to himself and George Chapman.	Buckle, turn, for window blinds.....	Dec.	28, 1858.....	II.	
19238	Chapman, M.....	Bread-cutter.....	Feb.	2, 1858.....	XVII.	
19071	Chapman, Nathan.....	Press, cotton.....	Jan.	12, 1858.....	XII.	
	Chapman, R. (See Huggins & Chapman.)					



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19748	Chapman, W. Z. W.	Paper-files.	March 30, 1858.	XVIII.
20143	Charlton, James	Planters, seed.	May 4, 1858.	I.
20405	Charter, O.	Fastener, sash.	June 1, 1858.	II.
	Chase & Fuller. (See Willis, N. J., assignor.)			
	Chase, North, & North. (See North, Gibson, assignor.)			
	Chase, North, & North. (See Smith & Brown, assignors.)			
	Chase, Samuel F. (See Boyd, Amos H., assignor.)			
22015	Chase, Thomas G.	Paper and other fabrics incorrodible, rendering	Nov. 9, 1858.	IV.
21596	Cheever, John H.	Belting-machine.	Sept. 28, 1858.	XIII.
19749	Chenoweth, George E.	Harvesters.	March 30, 1858.	I.
	Chepey, Charles. (See Demeure, Pierre.)			
20057	Chesbro, Gilbert H.	Cloth, elastic, device for turning down the edges of.	April 27, 1858.	III.
	Chesley, P. H.	Meat-choppers.	March 23, 1858.	XVII.
19681	Chester, J. H., assignor to M. A. Chester.	Heating buildings, &c., by combustion of gas or alcohol radiator for.	July 13, 1858.	V.
	Chestnut, Benjamin.	Clothes lines, post for.	Oct. 19, 1858.	XVI.
19324	Cheviron, Auguste. (See Malbert & Cheviron.)	Cotton gin	Feb. 9, 1858.	III.
	Chichester, Lewis J., assignor to Henry G. Evans, Samuel Barstow, and David L. Wintringham.			
21795	Chichester, Lewis, assignor to Henry G. Evans.	Gins, cotton	Oct. 12, 1858.	III.
19981	Chichester, Samuel.	Pump and gasometer, compound air.	April 20, 1858.	XI.
21719	Chilcott, J., and James Scrimgeour, assignors to themselves and George F. Taylor.	Aquaria, construction of.	Oct. 5, 1858.	XXII.
	Child, Brokaw, & Warder. (See Brokaw, John W., assignor.)			
	Child, Brokaw, & Warder. (See Harding, Thomas, assignor.)			
19683	Child, John.	Furnace, hot-air.	March 23, 1858.	V.
19486	Childs, Willis L.	Harvester.	March 2, 1858.	I.

22347	Chorman, E. G.	Ellipsograph	Dec.	21, 1858	VIII.
21408	Christian, T.	Window-blinds, operating	Sept.	7, 1858	IX.
19488	Christian, Theodore	Window-blinds, operating	Mar.	2, 1858	IX.
20623	Christman, T. F.	Raising marl, dirt, &c., machine for	June	22, 1858	XII.
19014	Church, A. C.	Paint vehicles	Jan.	5, 1858	IV.
22109	Churchman, W. H.	Heating and ventilating buildings, apparatus for	Nov.	23, 1858	V.
21816	Clampitt, Elias	Lubricator	Oct.	19, 1858	XII.
21550	Clapp, M. R.	Pump, rotary	Sept.	21, 1858	XI.
19912	Clapp, Perez C.	Boot-tops, circular, machine for trimming the edges of	April	13, 1858	XVI.
19829	Clare, N., and J. Quigley	Augers, &c., method of attaching expansible cutting-lips to.	April	6, 1858	XIV.
19621	Clark, Lindsey, & Moore. (See Moore, Clark, & Lindsey.) Clark, Shaw, & Giveen. (See Shaw, Clark, & Giveen.) Clark & Singer. (See Morey & Johnsons, assignors.) Clark, Abner Clark, Alvan, & Sons. (See Vander Woerd, Chas., assignor.)	Boilers, steam	Mar.	16, 1858	VI.
20326	Clark, C. L.	Hygrometers, device for actuating the index in	May	25, 1858	VIII.
19622	Clark, Charles B.	Vise	Mar.	16, 1858	II.
21245	Clark, Charles D.	Grain, cooling and ventilating, apparatus for	Aug.	24, 1858	V.
19015	Clark, D. W.	Sewing-machines	Jan.	5, 1858	III.
19072	Clark, D. W.	Sewing-machines	Jan.	12, 1858	III.
19529	Clark, D. W.	Sewing-machines	Jan.	19, 1858	III.
19409	Clark, D. W.	Sewing-machines	Feb.	23, 1858	III.
20481	Clark, D. W.	Sewing-machines	June	8, 1858	III.
21322	Clark, D. W.	Sewing-machines	Aug.	31, 1858	III.
19732	Clark, D. W., assignor to H. L. Clark	Sewing-machines	Mar.	23, 1858	III.
19016	Clark, Edwin	Mills, flouring	Jan.	5, 1858	XIII.
20329	Clark, Edwin	Mill, flouring	May	25, 1858	XIII.
21796	Clark, Edward, assignor to W. H. Dolson	Cans for preserving paint, &c.	Oct.	12, 1858	II.
1058	Clark, Ezra, assignor to Seth Clark	Tablets, cast metal	Oct.	26, 1858	Design.
19623	Clark, Gardner G.	Rolls, calender	Mar.	16, 1858	III.
	Clark, James. (See Shaw & Clark.) Clark, James J. (See Francis, Jerome B., assignor.) Clark, James J.	Forceps, tooth, mode of connecting electro-magnetic apparatus with.	Nov.	16, 1858	XX.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20327	Clark, James M.	Mills, flouring	May 25, 1858	XIII.
21819	Clark, John L.	Water-coolers, arrangement of means for making tight joints around the faucets of.	Oct. 19, 1858	XVII.
22276	Clark, John S.	Stoves	Dec. 14, 1858	V.
22277	Clark, John S., and Washington Harris. (See Beesley, J., assignor.)	Stoves	Dec. 14, 1858	V.
21820	Clark, John S., and Washington Harris	Hammers	Oct. 19, 1858	II.
20328	Clark, Josiah P.	Paddle, reciprocating	May 25, 1858	VII.
	Clark, P. C.			
	Clark, W. A. (See Heaton & Clark.)			
20192	Clark, W. A.	Bits, expansive, method of securing the movable cutter in.	May 11, 1858	XIV.
21597	Clark, W. A.	Bit, expansive	Sept. 28, 1858	XIV.
19544	Clark, William	Bedstead-fastening	Mar. 9, 1858	XVII.
20039	Clarkson, W. W.	Printing-press, card	April 27, 1858	XVIII.
	Clary, William C., and William Hawkins. (See Hawkins & Clary.)			
22348	Claude, E.	Fire-arm, breech-loading revolving	Dec. 21, 1858	XIX.
22349	Clawson, Henry T.	Cruet, pepper	Dec. 21, 1858	XVII.
20624	Clay, George E.	Lever power, mode of applying	June 22, 1858	XII.
22350	Clay, Henry T.	Shingles	Dec. 21, 1858	XIV.
20193	Clay, R. J.	Planters, corn	May 11, 1858	I.
994	Clayton, Charles H.	Press stand, copying	Mar. 23, 1858	Design.
20482	Clement, E. B.	Washing-machine	June 8, 1858	XVII.
22100	Clemons, Andrew B., assignor to Birmingham Iron Foundry Company.	Braiding-machine	Nov. 16, 1858	III.
20330	Clemson, W.	Saws, machinery for grinding	May 25, 1858	II.
19017	Cleveland, O.	Knives, plated table, bolster for	Jan. 5, 1858	II.
19893	Cline, J. C., assignor to himself and S. Rhodes	Saws, reciprocating scroll, method of grinding	April 6, 1858	XIV.
20038	Clinger, P. S., and C. Cremer	Straw and stalk cutters	April 27, 1858	I.
21466	Clinton, Miles L., assignor to H. F. Hibbard	Sewing-machines	Sept. 7, 1858	III.
19751	Clokey, John E.	Blinds, outside, opening and closing	Mar. 30, 1858	II.

19830	Clothier, C. F. (See Heidrick, F., assignor.)	Bags, clasp for fastening-----	April	6, 1858-----	XII.
19750	Cloud, W. H., A. L. Hatfield, and C. H. Burdick- Clough, William	Lubricator for railroad axles-----	Mar.	30, 1858-----	XII.
22163	Clute, Nicholas	Harvesters-----	Dec.	1, 1858-----	I.
19684	Coates, Fayette S.	Sewing-machines-----	Mar.	23, 1858-----	III.
19686	Coates, S.	Gas-generators, method of cleansing-----	Mar.	23, 1858-----	IV.
20777	Cobb, E. G., and S. E. Pettee. (See Pettee & Cobb)	Railroad-car seats and berths-----	July	6, 1858-----	X.
19685	Cobb, Z.	Tunnels, metallic, mode of connecting the sections of.	Mar.	23, 1858-----	IX.
20331	Cochran, John W.	Lubricating car-axles-----	May	25, 1858-----	XII.
20406	Cochran, John W.	Lubricating car-axles-----	June	1, 1858-----	XII.
21652	Cochran, J. W.	Axles, car, lubricating-----	Oct.	5, 1858-----	X.
21943	Cochran, John W.	Axle-boxes, car-----	Nov.	2, 1858-----	X.
22412	Cochran, John W.	Fire-arm, revolving-----	Dec.	28, 1858-----	XIX.
22103	Cochrane, John	Rails for railroads-----	Nov.	16, 1858-----	IX.
19831	Cockburn, John	Pen and pencil cases-----	April	6, 1858-----	XVIII.
21598	Cockley, D.	Ploughs-----	Sept.	28, 1858-----	I.
19489	Coe, Orman	Harrows-----	Mar.	2, 1858-----	I.
20407	Coes, A. J.	Pipe-tong-----	June	1, 1858-----	II.
537	Coffeen, M. (See Angel & Coffeen.)	Lamps, lard-----	Mar.	16, 1858-----	Reissue.
22413	Coffin, Hay, & Wilmarth. (See Wilmarth, Hay, & Coffin.)	(Locks, compensating pendulum for-----	Dec.	29, 1858-----	VIII.
20194	Cogswell, Henry	Buttons, sleeve, fastening for-----	May	11, 1858-----	XXI.
19018	Cohen, Emil	Husking and shelling glove-----	Jan.	5, 1858-----	I.
19110	Colburn, George S., assignor to Cyrus Wakefield--	Ratan machines, device for retaining in proper position the splitting-knife in.	Jan.	12, 1858-----	XIV.
21740	Colby, George J.	Willow, machine for peeling-----	Oct.	12, 1858-----	XXII.
19624	Cole, Almira M.	Husking and shelling-glove-----	Mar.	16, 1858-----	XXIII.
	Cole, E. E.	Lenses, fluid, mounting-----	Sept.	6, 1858-----	Extension.
19752	Cole, R. H.	Saws, circular, method of applying, for cutting off piles under water.	Mar.	30, 1858-----	II.
20043	Cole, R. H.	Screw-cutting-machine-----	April	27, 1858-----	II.
		Washers, machine for making-----			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20145	Cole, R. H.	Nut-machine.	May 4, 1858.	II.
21551	Cole, R. H.	Nut-machine.	Sept. 21, 1858.	II.
21599	Cole, R. H.	Nut-blanks, making.	Sept. 28, 1858.	II.
21653	Cole, Samuel W.	Washing-machine.	Oct. 5, 1858.	XVII.
22164	Coleman, J. M.	Valves of steam-engines, cut-off.	Dec. 1, 1858.	VI.
19074	Coleman, John. (See Musser & Coleman.)			
22064	Collender, H. W.	Billiard-tables, cushions for.	Jan. 12, 1858.	XXII.
	Collender, H. W.	Billiard-table.	Nov. 16, 1858.	XXII.
	Collender, H. W. (See Phelan, Michael, assignor.)			
185	Coller, Isaac H.	File-cutting machine.	Jan. 12, 1858.	Add'l imp't.
20255	Collier, H. M., and H. N. Baker.	Lamp, electric.	Mar. 18, 1858.	V.
20769	Collier, Henry M.	Car-brakes, railroad.	June 29, 1858.	X.
	Collins, Charles, <i>et al.</i> (See Wyllys, Newell, assignor.)			
19605	Collins, D., assignor to himself and W. L. Hanford.	Mills, hulling, dress of stone for.	Mar. 9, 1858.	XIII.
21165	Collins, J. J. G., assignor to Collins, Rhodes, & Drake.	Engines, steam.	Aug. 10, 1858.	VI.
19492	Collins, O. K.	Moulding for sash, machine for cutting.	Mar. 2, 1858.	XIV.
20144	Colt, Samuel.	Fire-arm, revolving.	May 4, 1858.	XIX.
20332	Colton, A.	Propeller-valve.	May 25, 1858.	VII.
20935	Colton, G. D.	Ploughs.	July 20, 1858.	I.
19073	Colvin, Stephen O.	Looms, power, let-off motion of.	Jan. 12, 1858.	III.
19019	Comfort, Samuel, jr.	Harvesters, rakes for.	Jan. 5, 1858.	I.
20699	Comfort, Samuel, jr.	Sewing-machine.	June 29, 1858.	III.
22050	Comfort, Samuel, jr., assignor to himself and Francis Jackson.	Sewing-machine.	Nov. 9, 1858.	III.
	Comstock, Higbie, & Link. (See King, John, assignor.)			
22016	Comstock, George R.	Propellers.	Nov. 9, 1858.	VII.
21654	Conant, W. C.	Carpet-stretcher.	Oct. 5, 1858.	XVII.

20195	Condit, Carr, Swift, Barnum, & Burr. (See Frost & Monroe, assignors.)	Harrows	May	11, 1858	I.
20334	Conkey, J. C.	Harvesters	May	25, 1858	I.
19020	Conklin, I. H.	Seeding-machines	Jan.	5, 1858	I.
20408	Conklin, Isaac H.	Washing-machine	June	1, 1858	XVII.
21323	Conklin, J. L., sr., and J. Froust	Seeding-machines	Aug.	31, 1858	I.
21534	Conklin, S., and G. Newton	Vessels, mode of launching	Sept.	14, 1858	VII.
19670	Conkling, Gurdon, assignor to W. T. Conkling	Ore, machine for crushing	Mar.	16, 1858	II.
	Conkling, Nathaniel				
	Connel, J. M., et al. (See Lawrence, H., assignor.)				
19021	Connel, James M.	Car-coupling, railroad	Jan.	5, 1858	X.
19075	Connel, James M. and John	Blacking boots, shoes, &c., machine for	Jan.	12, 1858	XVII.
20040	Conner, Eli T.	Railroad crossings, frogs for	April	27, 1858	IX.
1009	Conner, James	Types, a font of	June	1, 1858	Design.
1020	Conner, James	Types	July	6, 1858	Design.
1021	Conner, James	Types, printers'	July	6, 1858	Design.
1022	Conner, James	Types, printers'	July	6, 1858	Design.
1064	Conner, James	Types, script	Nov.	16, 1858	Design.
19982	Conroy, Edward	Cutters, rotary, sharpening, device for	April	20, 1858	XIV.
21944	Conroy, Edward	Corks, machine for cutting	Nov.	2, 1858	XXII.
20631	Cook, D. M.	Evaporating cane-juice, pans for	June	22, 1858	IV.
19490	Cook, Frederick	Bales, cotton, metallic ties for	Mar.	2, 1858	XII.
	Cooke, Benjamin F., et al. (See Mayall, Thomas, assignor.)				
21166	Cooke, James C.	Hose-coupling	Dec.	1, 1858	XI.
	Cooke, James C., and L. B. Cooley. (See Cooley & Cooke.)				
22165	Cooley, Asabel	Pumps	Nov.	30, 1858	XI.
19625	Cooley, L. B., and James C. Cooke	Hose, textile, manufacture of	Mar.	16, 1858	III.
595	Cooley, L. B., and James C. Cooke, assignors to L. B. Cooley, S. Babcock, and James C. Cooke.	Hose, textile, manufacture of	Aug.	31, 1858	Reissue.
	Coontz, Charles W., and William H. May. (See May & Coontz.)				
20700	Cooper, G. W.	Tire, upsetting	June	29, 1858	II.
22167	Cooper, George	Turning hubs, arrangement of cutters for	Dec.	1, 1858	XIV.
21741	Cooper, George E.	Harvesters	Oct.	12, 1858	I.
20625	Cooper, John H.	Gas-regulators	June	22, 1858	IV.
21742	Cooper, William	Stone, machine for dressing	Oct.	12, 1858	XV.
19410	Coover, Jacob	Bed-bottoms, spring	Feb.	23, 1858	XVII.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21873	Cope, Ezra.....	Engines, steam-pumping.....	Oct. 26, 1858.....	VI.
19680	Cope, Ezra, and Isaac W. Bragg Copeland, Charles W. (See How & Copeland.) Copeland, Josiah, assignor to J. M. Reed, assignor to Josiah Copeland.	Pumps, oscillating.....	Mar. 23, 1858.....	XI.
19833	Coppin, D. G.....	Boot-crimps.....	Jan. 11, 1858.....	Extension.
21923	Corbelli, Luigi Ferrari, and Vincent Riatti, as- signors to C. F. Corbelli.	Planters, hand corn.....	April 6, 1858.....	I.
21922	Corbelli, Luigi Ferrari, and Vincent Riatti, as- signors to C. F. Corbelli.	Aluminum, or calomel, manufacture of.....	Oct. 26, 1858.....	IV.
20628	Corbin, Lewis A., and Cyrus White. (See Puffer, Milton G., assignor.)	Aluminum, preparation of.....	Oct. 26, 1858.....	IV.
20333	Corbin, R. B., and James Morris	Harvesters, corn.....	June 22, 1858.....	I.
21488	Cordis, Francis T., and William W. Wade. (See Wade & Cordis.)	Alarm-locks, burglars'.....	May 25, 1858.....	XXII.
21487	Corey, A.....	Warp dressing-guides.....	Sept. 14, 1858.....	III.
21486	Corey, Alfred B.....	Warp dresser-guides of glass or other plastic anti- corrosive material, moulds for making.	Sept. 14, 1858.....	III.
20626	Corey, J. W.....	Car-couplings, railroad.....	Sept. 14, 1858.....	X.
19487	Cornelius, R.....	Gas-burner.....	June 22, 1858.....	V.
19076	Cornell, Birdsall.....	Lathing, continuous metallic.....	July 2, 1858.....	IX.
19348	Cornell, J. B. & W. W., & Co. (See Cady, J. L., assignor.)	Hinge-eye for shutters.....	Jan. 12, 1858.....	II.
19682	Cornell, John B.....	Window-shutters, metallic.....	Feb. 16, 1858.....	IX.
20484	Cornell, John B.....	Ceiling, fire-proof.....	Mar. 23, 1858.....	IX.
20629	Cornaell, John B.....	Steps, &c., admitting light and air through	June 8, 1858.....	IX.
576	Cornell, John B.....	Lath, metallic.....	June 22, 1858.....	IX.
21119	Cornell, John B.....	Lathing surface, continuous sheet metal.....	Aug. 3, 1858.....	Reissue.
21118	Cornell, John B.....	Safe-doors, safety-guard for.....	Aug. 10, 1858.....	V.
	Cornell, John B.....	Lath surface, metallic.....	Aug. 10, 1858.....	IX.

596	Cornell, John B.	Pavement, side-walk.	Sept.	7, 1858	Reissue.
20630	Cornell, W. W.	Shutters, metallic rolling	June	22, 1858	IX.
19983	Cosby, R. M.	Sawing-machine, cross-cut	April	20, 1858	XIV.
20627	Cotter, C. B.	Car-couplings	June	22, 1858	X.
22351	Cotton, P. H.	Cans, preserve	Dec.	21, 1858	XVII.
22414	Cotton, S. R.	Printing-press	Dec.	28, 1858	XVIII.
21720	Cottrell, C. B., assignor to himself and Nathan Babcock.	Planing wood, machine for	Oct.	5, 1858	XIV.
20409	Cottrill, James	Sewing-needles	June	1, 1858	III.
19133	Coutie, William	Rope-machine	Jan.	19, 1858	III.
21655	Covell, E. H. (See Marsh, A., assignor.)	Locks, cam for throwing bolt in	Oct.	5, 1858	II.
19753	Covert, Henry W.	Rake, horse hay	Mar.	30, 1858	I.
20041	Cowley, Asahel	Fire-arm, breech-loading	April	27, 1858	XIX.
19545	Cox, C.	Mills, sugar and cider	Mar.	9, 1858	XIII.
19832	Cox, Hamilton J.	Pocket-book, &c., method of securing	April	6, 1858	XXII.
20042	Cox, O.	Trap, rat	April	27, 1858	XXII.
21945	Cox, W. H.	Grain-separators	Nov.	2, 1858	I.
22327	Cox, William R.	Lamps	Dec.	14, 1858	V.
19349	Cradit, Nathaniel, assignor to Chester G. Robinson.	Shingle-machine	Feb.	16, 1858	XIV.
20239	Craine, George	Steering-apparatus	May	11, 1858	VII.
19351	Cram, S. B., and C. Weed, assignors to S. B. Cram.	Clock, public	Feb.	16, 1858	VIII.
21743	Crane, A. D.	Streets, machine for sweeping	Oct.	12, 1858	XXII.
19131	Crane, Amazi	Chain cable stoppers	Jan.	19, 1858	VII.
19130	Crane, E. (See Barnes, E., assignor.)	Plane, crozing	Jan.	19, 1858	XIV.
604	Crane, John E.	Shingle-machine	Sept.	28, 1858	Reissue.
21186	Crane, S. G.	Brick-machines	Aug.	17, 1858	XV.
20146	Crary, James	Brick-kilns	May.	4, 1858	XV.
19077	Crary, J. W.	Ploughs, gang	Jan.	12, 1858	I.
19754	Crary, John W.	Soap, manufacture of	Mar.	30, 1858	IX.
212	Cravath, M. A.	Soap, manufacture of	Dec.	14, 1858	Add'l imp't.
21552	Crawford, D.	Harvesters, raking-attachment for	Sept.	21, 1858	I.
20936	Crawford, Dalrymple	Boots and shoes, machine for cutting out the soles of.	July	20, 1858	XVI.
21552	Crawford, Peter S.	Looms, power	Nov.	16, 1858	III.
20936	Crawshaw, J.	Shingle-machine, circular sawing	Oct.	12, 1858	XIV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19111	Creemer, John B., assignor to himself and S. Dwight Humphrey.	Safe, match-----	Jan. 12, 1858-----	V.
20254	Cremer, C. (See Clinger & Cremer.)			
602	Creighton, J. B.-----	Cars, railroad, for day and night service-----	May 18, 1858-----	X.
21600	Creighton, J. B.-----	Cars, railroad, for day and night service-----	Sept. 21, 1858-----	Reissue.
	Creighton, J. B.-----	Cars, railroad, couches for-----	Sept. 28, 1858-----	X.
	Cresson, Stuart, & Peterson. (See Delany & Martino, assignors.)			
	Cridge, Wadsworth, & Co. (See Mackintosh & Wadsworth, assignors.)			
1059	Cridge, E. J.-----	Stoves-----	Nov. 2, 1858-----	Design.
610	Croll, Alexander Angus-----	Gas-metres-----	Oct. 5, 1858-----	Reissue.
19546	Croley, Charles-----	Billiard-table tops or beds-----	Mar. 9, 1858-----	XXII.
19755	Croley, Charles-----	Billiard-table, folding-----	Mar. 30, 1858-----	XXII.
20044	Crompton, George-----	Looms-----	April 27, 1858-----	III.
639	Crompton, George-----	Looms for weaving figured fabrics.-----	Dec. 28, 1858-----	Reissue.
	Cronk, James E., and James A. Disbrow. (See Disbrow and Cronk.)			
20778	Cronk, M. C.-----	Bottles, stoppers for-----	July 6, 1858-----	XXII.
548	Crook, Charles-----	Harvesters-----	May 4, 1858-----	Reissue.
19913	Crook, William-----	Mowing-machines-----	April 13, 1858-----	I.
19134	Crosby, Addison-----	Engines, steam, variable cut-off for-----	Jan. 19, 1858-----	VI.
21745	Crosby, Chauncy O.-----	Sewing-machines-----	Oct. 12, 1858-----	III.
19287	Crosby, Robert R.-----	Lamps, hydro-carbon vapor-----	Feb. 9, 1858-----	V.
533	Crossett, Isaac-----	Barrels and other casks, machinery for making-----	Mar. 2, 1858-----	Reissue.
	Crossett, Isaac-----	Barrels and other casks, machinery for making-----	June 29, 1858-----	Extension.
19350	Crossman, C. P., and E. M. Quimby-----	Life-preserving mattress-----	Feb. 16, 1858-----	VII.
20937	Crossman, L., and S. Atkinson-----	Locomotive engines, fire boxes for-----	July 20, 1858-----	VI.
20864	Crozier, A. H.-----	Barrel-heads, machinery for cutting-----	July 13, 1858-----	XIV.
21117	Crozier, A. H., and C. Carrier-----	Barrels, machinery for chamfering and crozing-----	Aug. 10, 1858-----	XIV.

21821	Cuekler, C. K.	Collars, horse	Oct.	19, 1858	XVI.
21231	Culver, E., jr., assignor to himself and S. M. Blackwell.	Clothes-horse	Aug.	17, 1858	XVII.
22278	Culver, L. (See Herrick, H. H., assignor.)	Pots, tea and coffee	Dec.	14, 1858	XVII.
22352	Culver, Stephen	Buckles	Dec.	21, 1858	XVI.
20991	Cumberland, John, and James R. McClintock.	Axle boxes, &c.	July	27, 1858	X.
21044	Cumming, D.	Mangles	July	27, 1858	XVII.
20045	Cumming, D., jr., assignor to D. Cumming, sr.	Blowing apparatus	April	27, 1858	XI.
20256	Cummings, David	Ballot-boxes	May	18, 1858	XXII.
20046	Cummings, A. (See Stern, W. Mt., assignor.)	Spectacle frames, joint for	April	27, 1858	VIII.
20468	Cummings, Allan	Car-brakes, railroad	June	1, 1858	X.
20551	Cummings, G. N.	Presses, hay and cotton	June	15, 1858	XII.
20938	Cummings, G. W., assignor to D. K. Jackman and Joseph Hanna.	Rubber goods, hard, manufacture of	July	20, 1858	IV.
588	Cummings, L. L.	Rubber goods, hard, manufacture of	Aug.	24, 1858	Reissue.
20632	Cuppers, Gustavus	Button holes, implement for cutting	June	22, 1858	XXI.
19352	Cuppers, Gustavus	Chairs, rocking	Feb.	16, 1858	XVII.
19411	Curtis, George S.	Harvester	Feb.	23, 1858	I.
22279	Curtis, S. S.	Excavator	Dec.	14, 1858	IX.
21553	Cushing, G. W.	Roofing cement	Sept.	21, 1858	IX.
21656	Custer, J. D.	Signal-machine, fog	Oct.	5, 1858	VIII.
20335	Custer, John	Water-wheel	May	25, 1858	XI.
20017	Cutts, J. S.	Pen, fountain	Nov.	9, 1858	XVIII.
19626	Cutting, James A., and L. H. Bradford	Photolithography	Mar.	16, 1858	XVIII.
21120	Dabol, C. L.	Brakes to hand trucks, applying	Aug.	10, 1858	IX.
20865	Daggett, H. N.	Bustles and skirts	July	13, 1858	XXI.
20469	Daggett, W., assignor to A. B. Davis and W. H. Tolhurst.	Drill for gas-pipe	June	1, 1858	II.
19914	Dailey, Wm. F.	Truss pads	April	13, 1858	XX.
19691	Dake, F. E., and J. W. Teal	Mills, hominy	Mar.	23, 1858	XIII.
20124	Dake, Frederick E., assignor to himself and Thomas E. Hunt.	Mill, sugar	April	27, 1858	XIII.
22066	Dalbey, Reuben M.	Jars, sealing preserve	Nov.	16, 1858	XVII.
	Damon, E., sr., and Alonzo Warren. (See Warren & Damon.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentec.	Invention or discovery.	Date.	Class.
20701	Dana, Edward A., <i>et al.</i> (See Schenke, John P., assignor.)	Motive power, mode of obtaining-----	June 29, 1858-----	XIII.
19756	Daniel, P., deceased, John F. Dunnington, administrator.	Composition for tanning leather-----	Mar. 30, 1858-----	IV.
21864	Daniels, Clinton-----	Screws from wire, lathe for cutting-----	Oct. 19, 1858-----	II.
22353	Daniels, G. W., assignor to himself and A. Fuller.	Furnaces, bagasse-----	Dec. 21, 1858-----	V.
21121	Dannoy, Felix-----	Gas, apparatus for purifying-----	Aug. 10, 1858-----	IV.
21489	Danowsky, W. F.-----	Steam-hammer-----	Sept. 14, 1858-----	VI.
19239	Danvers, P.-----	Furnaces, hot-air-----	Feb. 2, 1858-----	V.
19136	Darby, George-----	Shingle-machine-----	Jan. 19, 1858-----	XIV.
20842	Darby, George, and J. E. Young-----	Metre, water-----	July 6, 1858-----	XI.
20147	Darker, William J., assignor to J. B. Thompson-----	Sawing cross-cut, feeding device for-----	May 4, 1858-----	XIV.
20257	Darling, J.-----	Horse-power-----	May 18, 1858-----	XIII.
21554	Darling, Samuel-----	Inkstand-----	Sept. 21, 1858-----	XVIII.
19547	Daul, Anton, and Leopold Lankan. (See Henn, J., assignor.)	Meat-cutter-----	Mar. 9, 1858-----	XVII.
21657	Davenport, Abner B.-----	Paper bags, &c., knives to cut-----	Oct. 5, 1858-----	XVIII.
22018	David, Henry R.-----	Lacteal instruments-----	Nov. 9, 1858-----	XX.
20866	Davidson, C. H.-----	Tool for cutting cylindrical or tapering sticks-----	July 13, 1858-----	XIV.
	Davies, George-----			
	Davis & Henderson. (See Ball, Thomas, assignor.)			
	Davis, Sackett, & Co. (See Lancelott, J., assignor.)			
	Davis, A. S., <i>et al.</i> (See Ball, Thomas C., assignor.)			
21246	Davis, Abram-----	Roofing-compositions-----	Aug. 24, 1858-----	IX.
19915	Davis, A. B.-----	Corn-sheller-----	April 13, 1858-----	I.
	Davis, A. B., and W. H. Tolhurst. (See Daggett, W., assignor.)			

19325	Davis, Abbot R., assignor to himself and B. D. Moody.	Corn-husker	Feb.	9, 1858	I.
21324	Davis, Anthony G.	Sun-shades	Aug.	31, 1858	XXI.
22019	Davis, Edward M. (See Mason & Davis.) Davis, Elijah D. Davis, G. N., <i>et al.</i> (See Mayal, Thomas J., assignor.) Davis, G., and P. Mihan. (See Mihan, P., assignor.)	Aquarium	Nov.	9, 1858	XXII.
19758	Davis, G. W. Davis, Gilman, <i>et al.</i> (See Mihan, Patrick, assignor.) Davis, James F., <i>et al.</i> (See, Averill, Damon R., assignor.)	Printing-press	Mar.	30, 1858	XVIII.
20410	Davis, John S.	Harrow	June	1, 1858	I.
21187	Davis, John S.	Planter, corn	Aug.	17, 1858	I.
22003	Davis, Joseph H. Davis, L. H., and D. W. Entrikin. (See Entrikin & Davis) Davis, Lewis H., and Thomas W. McFarlan. (See McFarlan & Davis.) Davis, Solon M., <i>et al.</i> (See Jones, Amos, assignor.)	Mechanical movement	Nov.	2, 1858	XIII.
21822	Davis, T. J., and J. B. Warner Davis, Thomas W., <i>et al.</i> (See Rohr, D. E., assignor.)	Lifting heavy weights, machinery for	Oct.	19, 1858	XII.
19757	Davis, William M.	Steam-trap, balance	Mar.	30, 1858	VI.
19240	Dawes, Rufus	Stove	Feb.	2, 1858	V.
21823	Dawes, Rufus	Hammer-heads	Oct.	19, 1858	II.
21490	Day, A.	Shingle-machine	Sept.	14, 1858	XIV.
21122	Day, A. G.	Caoutchouc, treatment of	Aug.	10, 1858	IV.
620	Day, Austin G. Day, Horace H. (See Solis, Richard, assignor.)	Caoutchouc, treatment of	Nov.	9, 1858	Reissue.
20485	Dayton, H. G.	Cans, preserve	June	8, 1858	XVII.
22354	De Charms, Richard	Carpet-fastener	Dec.	21, 1858	XVII.
19022	De Charms, Richard	Hydrant	Jan	5, 1858	XI.
22020	Decker, Levi	Billiard-table, cushion for	Nov.	9, 1858	XXII.
21555	Decrow, A. W.	Alarm, burglar's	Sept.	21, 1858	XXII.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19548	Dederick, Levi.....	Journal boxes of connecting rods or pitmen, mode of lightning or securing the keys of.	Mar. 9, 1858.....	X.
21491	Defenbaugh, A..... Degener, F. O. (See Gordon and Degener.)	Plough, mole.....	Sept. 14, 1858.....	IX.
19627	De Golyer, William T.....	Roofing cement.....	Mar. 16, 1858.....	IX.
20148	De Hart, A. M.....	Car-springs, railroad.....	May 4, 1858.....	X.
20048	Deiss, Edouard.....	Process for extracting fatty matters.....	April 27, 1858.....	IV.
20047	Deiss, Edouard.....	Carbon, sulphuret of, apparatus for manufacturing	April 27, 1858.....	IV.
21045	Delahanty, J. P., assignor to himself and E. S. Ells, and E. S. Ells assignor to Clark Tomp- kins.	Knitting-machine.....	July 27, 1858.....	III.
22021	Delano, T. A.....	Life-preserving vests.....	Nov. 9, 1858.....	VII.
987	Delany, E. J., and John Martino, assignors to Cresson, Steuart, and Peterson.	Stove plates.....	Feb. 16, 1858.....	Design.
1010	Delany, E. J., and J. Martino, assignors to W. P. Cresson, D Steuart, and R Peterson.	Stoves, cook's.....	June 1, 1858.....	Design.
1026	Delany, E. J., assignor to H. E. March and J. Johnson.	Stoves, cook's.....	July 13, 1858.....	Design.
19184	Delany, Matthew.....	Dyeing yarns in the skein, apparatus for.....	Jan. 26, 1858.....	IV.
20019	Demeure, Pierre, assignor to Charles Chepy - Deming, James H. (See De Mirimonde, Leon Joseph Pomme, assignor to James H. Deming.)	Meat-cutters.....	April 20, 1858.....	XVII.
19237	De Mirimonde, L. J. P.....	Journals of axles on railways, reducing the fric- tion of.	Feb. 2, 1858.....	IX.
627	De Mirimonde, Leon Joseph Pomme, assignor to James H Deming.	Journals of axles on railways, reducing the fric- tion of.	Nov. 23, 1858.....	Reissue.
19078	Dempsey, Thomas.....	Harness-trees.....	Jan. 12, 1858.....	XVI.
19495	Denham, Thomas, and Joseph W. Briggs.....	Alarm, sash-balance.....	Mar. 2, 1858.....	XXII.
21066	Denio, Aaron, and Norman S. White. (See White and Denio.)	Coffee, apparatus for making.....	Aug. 3, 1858.....	XVII.
19079	Denley, J., and T. H. Heberling.....	C'ir-seats, railroad.....	Jan. 12, 1858.....	X.
	Denman, Jacob S.....			

21601	Denn, Charles S., and Powell Griscom. (See Griscom and Denn.)	Mills, sugar	Sept.	28, 1858	XIII.
19628	Denney, Samuel L.	Lock	Mar.	16, 1858	II.
19412	Denney, William	Plough-shovel	Feb.	23, 1858	I.
19496	Dennis, Paul	Plough, hill-side	Mar.	2, 1858	I.
19493	Dennis, Samuel, jr.	Boilers, apparatus for supplying water to	Mar.	2, 1858	VI.
20867	Dennison, John N., and Thomas Sealy	Fire-engines, force-pump for	July	13, 1858	V.
22067	Dennison, John N.	Furnace for burning coal-dust	Nov.	16, 1858	V.
22067	Deppen, G. B., and E. Levengood	Lock, bank	Nov.	2, 1858	II.
21947	Derby, Lyman	Yarn, roving or regulators for	Mar.	23, 1858	III.
19690	Dermond, Daniel	Wind-wheels	May	25, 1858	XI.
20336	Derrick, William H.	Grain-cleaning machine	May	11, 1858	I.
20196	De Rush, John	Railway-bars, mode of securing the ends of	Dec.	1, 1858	IX.
22168	Detmold, Christian E	Meal, cooling and drying	April	20, 1858	XIII.
19984	Deuchfeld, John				
	Devereux, G. H. and A. F., et al. (See Morse and Hughes, assignors.)				
19666	De Veuve, Henry	Boats, arrangement of devices for lowering and detaching.	Mar.	16, 1858	VII.
20149	Devin, George W	Bolt, ring	May	4, 1858	II.
19185	Devlan, P. S.	Gas-heating apparatus	Jan.	26, 1858	V.
21247	Devoye, Justin	Carpenter's work-bench	Aug.	24, 1858	XIV.
21325	Dewey, M., and J. Phillips	Carpet-fastener	Aug.	31, 1858	XVII.
21326	De Witt, John C.	Car-seats, railroad	Aug.	31, 1858	X.
21394	De Witt, John C., assignor to himself and T. Benedict.	Trace-fastening	Aug.	31, 1858	XVI.
	De Witt, Richard V., jr. (See Newbury, F. D., assignor)				
19494	De Witt, W., and O. D. Barrett	Harrow	Mar.	2, 1858	I.
20411	De Wolf, D. O.	Harvester, raking attachment to	June	1, 1858	I.
190	De Zeng, Henry L.	Bullet-mould	Feb.	16, 1858	Add'l imp't.
21067	Dick, James M.	Railroad-frogs	Aug.	3, 1858	IX.
20992	Dick, John	Boot-fronts, method of cutting	July	27, 1858	XVI.
20552	Dickenhof, P.	Hulling rice, machine for	June	15, 1858	I.
19288	Dickerman, C. S.	Cards for currying cattle	Feb.	9, 1858	I.
20939	Dickerman, Chauncey A.	Heater, steam	July	20, 1858	V.
19688	Dickey, C.	Grinding, machine for cutting the leaves from the sugar-cane preparatory to.	Mar.	23, 1858	XIII.
		Metals, shaping and punching			
19498	Dickey, Julius C.		Mar.	2, 1858	II.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19497	Dickinson, C. W. .... Dickinson, William P. (See Francisco and Dickinson.)	Jewelry, loop-chains for .....	Mar. 2, 1858.....	XVIII.
20663	Dickson, A. ....	Plough .....	June 22, 1858.....	I.
20412	Dickson, George L. ....	Carriage-brake .....	June 1, 1858.....	X.
21824	Dickson, John .....	Ploughs.....	Oct. 19, 1858.....	I.
19916	Dieffenbach, George.....	Teeth, bases for artificial .....	April 13, 1858.....	XX.
19499	Dietz, Andrew .....	Gate, farm .....	Mar. 2, 1858.....	IX.
19551	Diller, William .....	Lubricating the axle-boxes of carriage-wheels .....	Mar. 9, 1858.....	XII.
22110	Dillon, Jonathan.....	Time-keepers, method of regulating the winding of.....	Nov. 23, 1858.....	VIII.
21556	Dimock, Ira .....	Silk or other thread, according to its size, machine for sorting.....	Sept. 21, 1858.....	III.
20413	Dimock, Martial .....	Sewing-machines .....	June 1, 1858.....	III.
19135	Dimock, Martial, and Nathan Rixford.....	Sewing-machine.....	Jan. 19, 1858.....	III.
19241	Dimpfel, F. P. ....	Railroad track, mode of laying .....	Feb. 2, 1858.....	IX.
594	Dimpfel, F. P. ....	Boiler, steam .....	Aug. 31, 1858.....	Reissue.
22169	Dimpfel, F. P. ....	Boilers, steam, furnace for.....	Dec. 1, 1858.....	VI.
19689	Dinsmoor, O. R. ....	Hay-cock protector .....	March 23, 1858.....	I.
20868	Dinsmoor, O. R. ....	Clothes, drying apparatus .....	July 13, 1858.....	XVII.
19279	Disbrow, James A., and James E. Cronk, assignors to J. A. Disbrow.	Presses, cotton.....	Feb. 2, 1858.....	XII.
22068	Diss, L. ....	Lock, safe .....	Nov. 16, 1858.....	II.
20337	Disston, H. (See Smith, H., assignor.) Disston, H., and T. L. Morse.....	Saws, hand, bevelling device attached to .....	May 25, 1858.....	XIV.
22111	Disston, H., & Co. (See Johnson, Josea.)	Tuyere, blacksmiths' .....	Nov. 23, 1858.....	II.
21948	Dixon, Benjamin E. .... Dixon, Joseph.....	Steel, manufacturing.....	Nov. 2, 1858.....	II.
20995	Doane, A. S., <i>et al.</i> (See Hill, Sam. L., assignor.)	Sawing-machine.....	July 27, 1858.....	XIV.
21658	Doane, W. H., and C. Mason.....	Switch, railroad.....	Oct. 5, 1858.....	IX.
21327	Dodge, Charles C. .... Dodge, E. J. ....	Tire, upsetting carriage .....	Aug. 31, 1858.....	II.

21746	Dodge, James	Knives, grinding and polishing	Oct.	12, 1858	XVII.
20940	Doen, E.	Bolt, spring	July	20, 1858	II.
20338	Doen, Edward	Spring, window	May	25, 1858	II.
20258	Dole, L. A.	Meat-choppers	May	18, 1858	XVII.
20779	Dole, L. A.	Boring-machine	July	6, 1858	XIV.
22069	Dolson, W. H. (See Clark, Edward, assignor.)	Vault-light	Nov.	16, 1858	IX.
19629	Donaldson, C.	Separator and smut-machine	March	16, 1858	XIII.
20994	Donehoo, Daniel M.	Sewing-machines	July	27, 1858	III.
20049	Donovan, Cornelius	Planters, cotton seed	April	27, 1858	I.
21248	Donovan, J. T., and W. J. Fowler	Quartz-crusher	Aug.	24, 1858	II.
19186	Doolittle, A. J.	Car-coupling, railroad	Jan.	26, 1858	X.
20780	Doolittle, George W.	Axles, carriage, machine for upsetting	July	6, 1858	II.
21638	Doolittle, Zina	Blind operator	Sept.	28, 1858	II.
19917	Dorman, James A., and Joseph E. Stearns, assignors to James A. Dorman.	Car-brake, railroad	April	13, 1858	X.
21046	Dorsch, Gideon	Stove for burning soft coal	July	27, 1858	V.
19550	Dorsch, M. P., assignor to Peter Dorsch	Wagon-tires, machine for fitting	March	9, 1858	X.
20993	Dorsey, Edward L.	Paints	July	27, 1858	IV.
19549	D'Orsey, J. S.	Planters, seed	March	9, 1858	I.
19080	Doss, William C.	Sewing-machines	Jan.	12, 1858	III.
21659	Dougherty, H. F., et al. (See Ingersoll, P. C., assignor.)	Folding guides	Oct.	5, 1858	III.
22355	Douglas, Alexander	Skirt hoops, slide and fastening for	Dec.	21, 1858	XXI.
21747	Douglas, A., and S. S. Sherwood	Skirt hoops, fastenings for	Oct.	12, 1858	XXI.
22112	Douglas, Alexander, and Samuel S. Sherwood	Chimney caps	Nov.	23, 1858	V.
22170	Douglas, Charles	Steam trap	Dec.	1, 1858	VI.
19834	Douglas, Frank	Pump, portable	April	6, 1858	XI.
19759	Douglas, W. and B.	Galvanic batteries, device for preventing corrosion of the binding screws in.	March	30, 1858	VIII.
21949	Downing, H. (See Sutton, J. L., assignor.)	Harpoon	Nov.	2, 1858	VII.
20553	Doyle, George	Shingle-machine, device in feed motion of	June	15, 1858	XIV.
19242	Drake, Rhodes, and Collins. (See Collins, J. J. G., assignor.)	Planter, corn	Feb.	2, 1858	I.
205	Drake, E.	Planters, corn	Sept.	28, 1858	Add. imp't.
634	Drake, N.	Planters, corn	Dec.	14, 1858	Reissue.



Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21748	Draper, E. D. & G., <i>et al.</i> (See Houghton, A., assignor.)	Boxes, portable	Oct. 12, 1858	XVIII.
19081	Draper, F. (See Jenks & Draper.)	Piano-fortes	Jan. 12, 1858	XVIII.
19353	Drew, Henry Z. (See Forman, S. F., assignor.)	Fence, field	Feb. 16, 1858	IX.
20781	Dreyspring, Adolphe	Planter, corn	July 6, 1858	I.
22171	Driggs, Spencer B.	Seeding-machine	Dec. 1, 1858	I.
20051	Drown, John	Gins, cotton	April 27, 1858	III.
19082	Drummond, W.	Bell-hanging	Jan. 12, 1858	XVII.
19413	Du Bois, John	Presses, cotton	Feb. 23, 1858	XII.
20259	Du Bois, N. G.	Trunks, card-plates for	May 18, 1858	XVI.
20761	Duchamp, Eugene	Sewing-machine	June 29, 1858	III.
	Dudley, J. Q. (See Marsh, A., assignor.)			
	Dudley, Joseph			
	Dugdale, Thomas A., assignor to himself and John A. Burbank.			
22471	Dulaney, George L., assignor to himself and Solomon K. Moore.	Car-seats, railroad	Dec. 28, 1858	X.
20634	Dunklee, H., <i>et al.</i> (See Kelsea, H., assignor.)			
19750	Dunning, W. B.	Shafting, coupling-box for	June 22, 1858	XIII.
	Dunning, William B.	Staves, rotary, reciprocating knives for smoothing-	March 30, 1858	XIV.
	Dunning, William B., E. E. Lewis, and C. Wheat. (See Lewis, Dunning, & Wheat.)			
	Dunnington, John F., administrator. (See Daniel, P., deceased.			
19354	Dunworth, J. A. & F.	Reins, horse, device for holding	Feb. 16, 1858	XVI.
20554	Durand, J. M.	Watch-cases	June 15, 1858	VIII.
20414	Durden, Thomas	Bridges	June 1, 1858	IX.
557	Durgin, C. A. (See Lapham & Burns, assignors.)	Sewing-machine	June 15, 1858	Reissue.
	Durgin, C. A.	Cloth, machinery for folding and measuring	March 4, 1858	Extension.
21558	Durgin, Silas C.	Cigar-wrappers	Sept. 21, 1858	XXII.
	Durell, Henry			

19289	Durfee, Edwin C., <i>et al</i> (See Fairbank, John B., deceased )	Mill, grinding -----	Feb. 9, 1858-----	XIII.
20050	Duryea, H. V -----	Harvester -----	April 27, 1858-----	I.
22230	Dutton, R.-----	Lamp, burner for-----	Dec. 7, 1858-----	V.
22415	Dyer, Owens, and Lane (See Owens, Lane, & Dyer.)	Stump-extractor-----	Dec. 29, 1858-----	IX.
	Dyott, M. B -----	Blasting or removing submarine bodies, method of-----	Dec. 29, 1858-----	IX.
	Eagle, Francis M-----	Hub-machine -----	May 11, 1858-----	X.
	Eagle Screw Company. (See Sloan, Thomas J., assignor.)	Scales, platform-----	April 20, 1858-----	XII.
22472	Eakins, Samuel, assignor to himself and M. S. Wickersham.	Dividers, mathematical-----	Jan. 5, 1858-----	VIII.
20197	Eames, L.-----	Stoves, cooking, ovens for -----	April 27, 1858-----	V.
19985	Earle, Charles H -----	Stoves, coal, grates for-----	Sept. 7, 1858-----	V.
19058	Earle, John E., assignor to himself and Samuel Shepherd.	Stoves, cooking, flues of elevated oven-----	Sept. 7, 1858-----	V.
20033	Easterly, James -----	Cop-tubes -----	April 13, 1858-----	II.
21410	Easterly, James -----	Shuttles, cop-tubes for-----	Aug. 3, 1858-----	III.
21467	Easterly, James, assignor to himself and Dennis G. Littlefield.	Propeller, marine-----	Oct. 19, 1858-----	VII.
19918	Eaton, James -----	Water-closet -----	Aug. 24, 1858-----	IX.
21068	Eaton, James -----	Brake, railroad-----	Dec. 14, 1858-----	IX.
21825	Eaton, John-----	Carpet-sweeper -----	Oct. 5, 1858-----	XVII.
	Eaton, Joseph, administrator. (See Paine, Chas. F., deceased.)	Carriage-wheels, metallic hub for-----	July 13, 1858-----	X.
21294	Eddy, George W. (See Vedder, N. S., assignor.)	Wheelwrights' machine -----	Feb. 2, 1858-----	XIV.
22280	Edelman, Isaac, assignor to G. W. Edelman, jr-----	Rolling railway bars -----	June 29, 1858-----	II.
21660	Edge, William-----	Stoves -----	Dec. 29, 1858-----	V.
20869	Edson, Jacob -----	Paddle-wheel -----	Oct. 19, 1858-----	VII.
19243	Edson, N. T -----	Mill, cider-----	Oct. 26, 1858-----	XIII.
	Edson, Nathaniel T-----			
	Edwards, Edward, <i>et al</i> . (See Ball, Thomas C., assignor.)			
20702	Edwards, G.-----			
22416	Edwards, John S. (See Holly, B., assignor.)			
	Edwards, Nelson-----			
	Egnor, Joel, and H. Van Steenbergh. (See Van Steenbergh & Egnor.)			
21826	Ehrhart, H.-----			
21874	Eiberweiser, John -----			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19187	Eisenbrandt, C. H.	Musical wind instrument	Jan. 26, 1858	XVIII.
20339	Eisenbrandt, C. H.	Car-brake, railroad	May 25, 1858	X.
21875	Eiswald, T. G.	Washing-machine	Oct. 26, 1858	XVII.
20198	Eldred, David, <i>et al.</i> (See Markham & Eldred.)	Chair, reclining	May 11, 1858	XVII.
20976	Eliaers, A.	Straw-shaker	July 20, 1858	I.
21123	Ellig, L., assignor to Andrew Garrett.	Bed-bottom	Aug. 10, 1858	XVII.
21188	Elliot, W. H.	Fire-arm, revolving	Aug. 17, 1858	XIX.
21124	Elliot, W. H.	Hinges	Aug. 10, 1858	II.
19986	Elliot, J. G. (See Byrne & Elliott.)	Locomotive engine, driving wheels of	April 20, 1858	VI.
544	Ells, E. S. (See Delehanty, J. P., assignor.)	Boilers, steam	April 13, 1858	Reissue.
21125	Ells, J. A. (See Pratt, George, assignor.)	Harvester	Aug. 10, 1858	I.
22113	Ells, W. M. & J. M.	Stones for ballasting railroads and turnpikes, machine for breaking.	Nov. 23, 1858	XV.
19245	Ellsworth, M. E.	Galvanic batteries, mode of attaching the electrodes to the poles of.	Feb. 2, 1858	VIII.
19244	Elmendorf, Joseph	Saws, gumming and jointing	Feb. 2, 1858	II.
21189	Elton, C. M., <i>et al.</i> (See Kendall & Keyes, assignors.)	Pessaries	Aug. 17, 1858	XX.
20703	Ely, Alfred B. (See Whipple, Milton D.)	Eels, apparatus for skinning	June 29, 1858	XXII.
19137	Ely, Alfred B., <i>et al.</i> (See Cary, A. B., assignor.)	Harvester	Jan. 19, 1858	I.
	Ely, Charles. (See Harvey, Thomas W., assignor.)			
	Emeigh, A.			
	Emery, Francis F. (See Johnson, Albert F.)			
	Emmery, Ezra			
	Emrich, P., <i>et al.</i> (See Murrill, J., assignor.)			

20260	Ende, Julius. (See Schimmelfennig & Ende.)	Cultivator .....	May 18, 1858.....	I.
21126	Endsley, John, and E. Fletcher.	Tanning hides, apparatus for .....	Aug. 10, 1858.....	XVI.
20052	England, Lewis C.....	Hatchet .....	April 27, 1858.....	II.
	English, N. F.....			
	Engmann, P. (See Featherstone, H., and P. Engmann.)			
19919	Entrikin, D. W., and L. H. Davis .....	Harvester .....	April 13, 1858.....	I.
19920	Entrikin, D. W., and L. H. Davis .....	Harvester, cutting device for .....	April 13, 1858.....	I.
20782	Ericsson, J.....	Engines, steam .....	July 6, 1858.....	VI.
22281	Ericsson, John .....	Air-engine .....	Dec. 14, 1858.....	XI.
20941	Erkson, G.....	Mill, grinding .....	July 20, 1858.....	XIII.
19835	Ernsberger, M.....	Saw-gummer .....	April 6, 1858.....	II.
1034	Erwin, Cornelius B .....	Door-lock plates .....	Aug. 10, 1858.....	Design.
1035	Erwin, Cornelius B.....	Door-lock plates .....	Aug. 10, 1858.....	Design.
19761	Eshleman, J. J.....	Horse and cattle tie, self-loosening.....	Mar. 30, 1858.....	XXII.
22070	Essig, Bartholomew.....	Vegetable-cutter and coffee-mill combined .....	Nov. 16, 1858.....	XVII.
22114	Estes, Samuel.....	Looms, picker-staffs for .....	Nov. 23, 1858.....	III.
	Eustice, Thomas, and Joseph Jordan, jr. (See Jordan & Eustice.)			
19188	Evans, E. L.....	Curry-combs .....	Jan. 26, 1858.....	II.
	Evans, Henry G. (See Chichester, Lewis J., as signor.)			
	Evans, Henry G. (See Chichester, Lewis S., as signor.)			
20199	Evans, James W.....	Tobacco, pipes and cigar-holders or mouth-pieces for smoking .....	May 11, 1858.....	XXII.
21661	Evans, James W.....	Plough, steam .....	Oct. 5, 1858.....	I
21559	Evans, Joseph P.....	Coal, machine for washing .....	Sept. 21, 1858.....	V.
19692	Evarts, Harry H.....	Sawing staves, machine for .....	Mar. 23, 1858.....	XIV.
20843	Ewing, J., assignor to F. V. Rushton.....	Bottles, stopper for .....	July 6, 1858.....	XXII.
19552	Fagan, Joseph and James L.....	Corn-husker .....	Mar. 9, 1858.....	I.
20415	Fagan, M. G.....	Stove, wood-burning .....	June 1, 1858.....	V.
19762	Fahnestock, W. B.....	Axle-boxes .....	Mar. 30, 1858.....	X.
19763	Fahnestock, William B.....	Car-wheels .....	Mar. 20, 1858.....	X.
19060	Fabrney, Ezra, assignor to John Donaldson.....	Mill, hominy .....	Jan. 5, 1858.....	XIII.
19329	Fairbank, John B., dec'd, Joshua Fairbank and Edwin C. Durfee, administrators.	Planter, hand corn .....	Feb. 9, 1858.....	I.
21127	Fairchild, H. C.....	Planter, seed .....	Aug. 10, 1858.....	I.
20200	Fairchild, J. H.....	Water-wheel .....	May 11, 1858.....	XI.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22282	Fairchild, John H	Water-wheel	Dec. 14, 1858	XI.
22356	Fairclough, John	Mill-stones, balancing	Dec. 21, 1858	XIII.
22283	Fairfield, G. W	Car-seats and couches	Dec. 14, 1858	X.
19553	Faivre, A. C	Fire-arm, repeating	Mar. 9, 1858	XIX.
21328	Falconer, Ralph J	Fastener, sash	Aug. 31, 1858	II.
20635	Falkenbury, S	Cast-iron cylinders, repairing	June 22, 1858	II.
	Falls, Thomas J., jr. (See Lyon & Brady, assignors.)			
19414	Farris, William M	Metre, water	Feb. 23, 1858	XI.
19836	Farmer, George G	Iron and steel, hardening	April 6, 1858	II.
21329	Farmer, Moses G	Telegraph wire, method of sending and receiving messages simultaneously over the same.	Aug. 31, 1858	VIII.
22071	Farmer, Moses G	Electro-magnetic fire-alarm apparatus	Nov. 16, 1858	VIII.
21492	Farmer, Moses G, and John M. Batchelder	Telegraph insulators	Sept. 14, 1858	VIII.
20783	Farnam, Gilbert B.	Pump	July 6, 1858	XI.
20240	Farrington, George K., and Samuel Brown, jr., assignors to themselves and David B. Tiffany.	Candy-machine	May 11, 1858	XXII.
21637	Farrington, George K., assignor to D. B. Tiffany.	Churn	Sept. 28, 1858	I.
19733	Farson, Enoch S., assignor to himself and Henry H. Brown.	Freezer, cream	March 23, 1858	XVII.
19921	Fasig, John	Hay-knives	April 13, 1858	I.
20844	Faust, John F., assignor to himself and Richard M. Ross.	Rake, horse hay	July 6, 1858	I.
19987	Favor, Zebulon C	Bedsteads, portable, invalid	April 20, 1858	XVII.
19189	Fawkes, Joseph W	Ploughing, machine for	Jan. 26, 1858	I.
20201	Fay, Henry C	Time-keeper	May 11, 1858	VIII.
21749	Fay, L.	Metal, sheet, machine for cross-seaming	Oct. 12, 1858	II.
22172	Fay, L. N., and William Mason	Blind operator	Nov. 30, 1858	II.
20784	Fearington, J. J	Mills for cutting, crushing, and expressing the juice from sugar-cane.	July 6, 1858	XIII.
20870	Featherstone, H., and P. Engmann	Sawing-machine	July 13, 1858	XIV.
19764	Fee, William R.	Springs, pneumatic	March 30, 1858	X.

19734	Feger, Daniel H., assignor to himself and Mahlon M. Wombaugh.	Car-brake, railroad	March 23, 1858	X.
19554	Feickert, Charles.	Cord, plaited, machinery for manufacturing	March 9, 1858	III.
19023	Fell, H. R.	Kiln, lime	Jan. 5, 1858	XV.
19138	Fenn, William A.	Hats, felts, machinery for forming brims of	Jan. 19, 1858	III.
20997	Feraw, John H.	Harness tug buckle	July 27, 1858	XVI.
20996	Ferber, A.	Window-blinds, operating	July 27, 1858	IX.
21295	Ferguson, James, assignor to himself and Lazell, Perkins, & Co.	Valve gear of steam engines	Aug. 24, 1858	VI.
22173	Fergusson, John R.	Furnaces, hot-air	Dec. 1, 1858	V.
611	Fernald, James.	Chairs	Oct. 12, 1858	Reissue.
21950	Ferrier, John.	Tackle-block	Nov. 2, 1858	XII.
19837	Ferris, W. P. Garrett, and J. Megratten	Refrigerator	April 6, 1858	XVII.
542	Ferry, William M., jr.	Sawing-mill	April 6, 1858	Reissue.
20150	Ferry, William M., jr.	Sawing-machines, circular device for governing lateral motion of carriage in gigging back in.	May 4, 1858	XIV.
22417	Fessel, H. E.	Propeller, steering	Dec. 29, 1858	VII.
19059	Fetter, George, assignor to himself and Edward Jones.	Sewing-machines	Jan. 5, 1858	III.
20942	Field, David C. (See Hicks, Lucien, assignor.)	Watch-cases, making	July 20, 1858	VIII.
20340	Field, Edwin.	Knife-polisher	May 25, 1858	XVII.
19838	Field, H. T.	Presses, cotton	April 6, 1858	XII.
21190	Field, William	Bales, metallic bands for binding	Aug. 17, 1858	XII.
20998	Field, William	Car-springs, railroad	July 27, 1858	X.
21249	Fields, John J.	Desk, writing	Aug. 24, 1858	XXII.
20341	Fiester, John U.	Carpet-fastener	May 25, 1858	XVII.
20053	Filkins, W.	Tayere	April 27, 1858	II.
19355	Finch, George W.	Traps for catching rats and other animals.	Feb. 16, 1858	XXII.
20151	Fink, Earl D.	Casting car-wheels.	May 4, 1858	II.
19356	Finkham, H. G. (See Gibson, E. G., assignor.)	Surveyor's protractor	Feb. 16, 1858	VIII.
20054	Finley, David.	Cabbage-cutter	April 27, 1858	XVII.
22264	Finn, John A.	Sewing-machine.	Dec. 7, 1858	III.
19083	Firman, Joseph. (See Hooffstater, Charles, assignor.)	Mowing-machines	Jan. 12, 1858	I.
19246	Fischer, A.	Amalgamator, gold.	Feb. 2, 1858	II.
20054	Fischer, A.			
22264	First, John, assignor to himself and James Frost.			
	Fish, John, <i>et al.</i> (See Goodfellow, S., assignor.)			
19083	Fisher, Henry			
19246	Fisher, Joseph H.			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19555	Fisher, M.-----	Railroad-rails splice-----	March 9, 1858-----	IX.
20152	Fisher, R. H.-----	Harvester-----	May 4, 1858-----	I.
21827	Fisher, Rosewell H.-----	Harvester-----	Oct. 19, 1858-----	II.
21662	Fisher, W. T.-----	Graincleaning-machine-----	Oct. 5, 1858-----	I.
21663	Fisk, J. E.-----	Gas-metre-----	Oct. 5, 1858-----	IV.
20055	Fisler, Thomas-----	Ruler-----	April 27, 1858-----	XVIII.
20261	Fitch, Benjamin-----	Barrelhead-machine-----	May 18, 1858-----	XIV.
22174	Fitts, David B.-----	Watches, device to prevent injury from rupture of main spring of.-----	Dec. 1, 1858-----	VIII.
21250	Fitts, R. B., and Milton D. Whipple-----	Sewing-machine-----	Aug. 24, 1858-----	III.
21664	Fitzgerald and Perry, <i>et al.</i> (See Perry & Fitzgerald, assignors)-----	Rake, hay-----	Oct. 5, 1858-----	I.
208	Fleming, John-----	Lanterns, method of attaching lamps to-----	Nov. 2, 1858-----	Ad'l imp't.
20785	Fleming, John-----	Lamps to lanterns, method of attaching-----	July 6, 1858-----	V.
22328	Fletcher, E., and John Endsley. (See Endsley & Fletcher.-----	Boots and shoes, heels for-----	Dec. 14, 1858-----	XVI.
20416	Flint, Samuel, and Robert S. Rogers, assignors to William F. Johnson.-----	Harvester-----	June 1, 1858-----	I.
19190	Flowers, A. B. J.-----	Brooms, art of making-----	Jan. 26, 1858-----	XVII.
21602	Floyd, Thomas, assignor to himself, David K. Flynn, J., P. Emrich, <i>et al.</i> (See Murrill, J. H., assignor.)-----	Blocks, tackle, attachment for-----	Sept. 28, 1858-----	VII.
21395	Fogarty, Valentine, assignor to Francis Houghton.-----	Inkstands-----	Aug. 31, 1858-----	XVIII.
22329	Fogg, George W., assignor to himself and D. S. Fogg.-----	File-cutting machine-----	Dec. 14, 1858-----	II.
21191	Foley, C. O.-----	Stove-----	Aug. 17, 1858-----	V.
19358	Folts, Jacob J.-----	Fire-box and grate-----	Feb. 16, 1858-----	V.
22231	Forbes, Isaac W.-----	Staves from the bolt, machine for cutting-----	Dec. 7, 1858-----	XIV.
21876	Forbes, Thomas-----	Brick-machine-----	Oct. 26, 1858-----	XV.

19501	Forbes, William H.	Sash-fastener	Mar.	2, 1858	II.
1070	Forbes, William H.	Coffins, metallic	Dec.	7, 1858	Design.
19500	Ford, F. G., and P. Plant	Vessels, sunken, method of raising	Mar.	2, 1858	VII.
21951	Ford, Joseph S.	Vise, gas-fitters'	Nov.	2, 1858	II.
21665	Fordyce, John	Washing-machine	Oct.	5, 1858	XVII.
21411	Forman, J. C.	Paper, machine for ruling	Sept.	7, 1858	III.
20762	Forman, S. F., assignor to Henry Z. Drew	Planing-machine, rotary, device for securing cutters in.	June	29, 1858	XIV.
21251	Forrester, J. N.	Car-seats and couches	Aug.	24, 1858	X.
21330	Forsman, J. A.	Mill-stones, hanging	Aug.	31, 1858	XIII.
22022	Forsyth, Rockwell, Rice, and Barnes. (See Buell & Barnes, assignors.)	Churns, operating	Nov.	9, 1858	I.
538	Forsyth, Joseph	Hat bodies, machinery for making	Mar.	23, 1858	Reissue.
21877	Fosket, William	Grain-separators	Oct.	26, 1858	I.
19922	Foster, Aaron	Bed-bottom, spring	April	13, 1858	XVII.
191	Foster, E.	Life-preserving berths for steam and other vessels	Feb	16, 1858	Add'l imp't.
19084	Foster, Elbridge	Safe, marine	Jan.	12, 1858	VII.
19357	Foster, J. R. (See Wood, A. H., assignor)	Tree protector	Feb.	16, 1858	I.
20918	Foster, Josiah	Chair-backs, machine for manufacturing	July	13, 1858	XIV.
528	Foster, Josiah	Pencil-sharpeners, moulds for casting	Feb.	23, 1858	Reissue.
19191	Foster, Walter K.	Pencil-sharpeners, making blades for	Jan.	26, 1858	XVIII.
20056	Foster, Walter K.	Pencil-sharpener	April	27, 1858	XVIII.
20262	Foster, Walter K.	Pencil-sharpener	May	18, 1858	XVIII.
19085	Foulke, C. F., and H. Marshman. (See Marshman & Foulke.)	Harvesters, raking attachment for	Jan.	12, 1858	I.
20786	Fountain, James L.	Clocks, registering attachment for	July	6, 1858	VIII.
22115	Fournier, S.	Carbon, mode of backing articles composed of	Nov.	23, 1858	IV.
21252	Fowler, De Grass B.	Seeding-machine	Aug.	24, 1858	I.
22418	Fowler, Joseph, and F. M. Bacon	Seeding-machine	Dec.	29, 1858	I.
21412	Fowler, Joseph, and F. M. Bacon	Car-seats and couches	Sept.	7, 1858	X.
19556	Fowler, R. E.	Pin-sticking machine	Mar.	9, 1858	II.
19988	Fowler, T.				
	Fowler, W. J. (See Donovan & Fowler.)				
	Fox, A. C. (See Keiper & Fox.)				
	Fox, F. (See White, J. P., assignor.)				
	Frampton, Charles	Burnisher	April	20, 1858	II.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20263	France, Thomas.....	Fabrics, woven tucked.....	May 18, 1858.....	III.
20390	Francis, Jerome B., assignor to William Harper, jr., assignor to J. B. Francis, assignor to James J. Clark.	Teeth, method of extracting.....	May 25, 1858.....	XX.
19693	Francis, Joseph.....	Boats, metallic.....	Mar. 23, 1858.....	VII.
19765	Francis, S. W.....	Omnibus fares, cane for paying.....	Mar. 30, 1858.....	X.
22357	Francisco, Samuel P., and William P. Dickinson.	Hydrant.....	Dec. 21, 1858.....	XI.
19139	Frank, T., and J. Stuber. (See Stuber & Frank.)	Steamers, ships, &c., table rack for.....	Jan. 19, 1858.....	VII.
	Franz, John.....			
	Frary, James A. (See Whittelsey, N. P., assignor.)			
	Fraser, D. K., <i>et al</i> (See Gates, Fraser, & Chalmers.)			
21128	Fraser, N. W., and A. J. McLellan.	Cultivator.....	Aug. 10, 1858.....	I.
	Frazer, J. H. (See Love & Frasee.)			
	Frederick, M. C., and O. S. Boyden. (See Boyden & Frederick.)			
	Free, John W. (See Taylor, George, assignor.)			
20704	Freeman, K.....	Shingle-machine, rotary.....	June 29, 1858.....	XIV.
21331	Freeman, K.....	Car-seats and couches.....	Aug. 31, 1858.....	X.
19687	French, A. F., assignor to George J. Stannard.	Reapers, binding attachment to.....	Mar. 23, 1858.....	I.
19989	French, Charles.....	Life-preserving bucket raft.....	April 20, 1858.....	VII.
20202	French, D. S., <i>et al</i> . (See Miller, W., assignor.)	Bee hive.....	May 11, 1858.....	I.
	French, E. P.....			
	French, Joshua A., and Eliza C. Tyrrell. (See Haskins & Macardle, assignors.)			
1074	French, William B.....	Book-marks.....	Dec. 14, 1858.....	Design.
	Frey, Charles. (See Roesler & Frey.)			
19839	Frey, Joseph.....	Seeding-machine.....	April 6, 1858.....	I.
22284	Frick, Jacob.....	Boilers, steam, feed water and blow-off apparatus for.	Dec. 14, 1858.....	VI.
22358	Friend, Samuel, and George Seiler.....	Ring, finger, extension.....	Dec. 21, 1858.....	XVIII.

20943	Frisbie, John L., and M. Robbins. (See Robbins & Frisbie.)	Rule, carpenters' .....	July	20, 1858	VIII.
21868	Fritschler, William O. C.	Rolling railway iron .....	Oct.	5, 1858	III.
22359	Fritz, John.	Grain, machine for separating garlic from .....	Dec.	21, 1858	XIII.
555	Fritz, P. C.	Flour from bran, machinery for separating .....	May	11, 1858	Reissue.
	Frost, A., and J. C. Kelly. (See Kelly & Frost.)				
	Frost, I., and J. Monroe, assignors to H. A. Barr, J. D. Condit, A. Swift, D. Barnum, and J. M. Carr.				
524	Frost, James, <i>et al.</i> (See First, John, assignor.)	Scythe fastenings .....	Feb.	9, 1858	Reissue.
20342	Frost, Pinckney.	Plough gang .....	May	25, 1858	I.
	Froust, J. (See Conkling & Froust.)				
	Frye, J.				
	Fulforth, William, <i>et al.</i> (See Lovelidge, T., assignor.)				
21332	Fuller & Chase. (See N. J. Willis, assignor.)	Steam cock .....	Aug.	31, 1858	VI.
22360	Fuller, Warren, & Morrison. (See Hathaway, David, assignor.)	Horse-power for driving reciprocating saws .....	Dec.	21, 1858	XIII.
597	Fuller, Albert.	Trap for catching flies .....	Sept.	7, 1858	Reissue.
21750	Fuller, D. B. and J. C. (See Kelsea, H., assignor.)	Railings, iron, construction of .....	Oct.	12, 1858	IX.
21069	Fuller, Edward M.	Lamp .....	Aug.	5, 1858	V.
	Fuller, Joel B., and George W. Pierce.				
	Fuller, William S.				
	Fulton, W.				
	Furbish, D. H., and J. B. Cahoon. (See Cahoon, C. W., assignor.)	Life-raft, extensible .....	Nov.	30, 1858	VII.
22175	Furbush, Calvin.	Bee-hive .....	June	1, 1858	I.
20417	Furlong, J. P.				
	Furniss, F. H. (See Myers & Furniss)				
19990	Gabel, John, <i>et al.</i> (See Williams, E. M., assignor.)	Fence, field .....	April	20, 1858	IX.
	Gabriel, Benedict.				
	Gage, A. G., and J. F. Beckwith. (See Beckwith & Gage.)				
19696	Gage, D. H.	Mills, pug, grinding attachment to .....	Mar.	23, 1858	XIII.
22288	Gaige, William W.	Composition for tanning leather .....	Dec.	14, 1858	IV.
21667	Gaines, C. A.	Cotton-scraper .....	Oct.	5, 1858	I.
20845	Gale, W. S., assignor to himself, A. A. Valentine, and W. H. Butler.	Valve-regulator .....	July	6, 1858	VI.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22419	Gallagher, Patrick	Chairs and other seats, spring-bottom for	Dec. 28, 1858	XVII.
22116	Gandolfo, J. (See Marzoni, C., assignor.)	Gearing	Nov. 23, 1858	XIII.
20606	Ganster, G. P.	Propeller	June 15, 1858	VII.
20418	Gardiner, C. F., assignor to himself and H. D. Gardiner.	Cars, railroad, springs for	June 1, 1858	X.
20419	Gardiner, Heman	Railroad axle, compound	June 1, 1858	IX.
19767	Gardiner, Perry G.	Car-springs, machine for testing and measuring the strength of.	Mar. 30, 1858	X.
21603	Gardiner, Perry G.	Car-springs, tempering steel for	Sept. 28, 1858	X.
21828	Gardiner, Perry G.	Furnace for tempering steel	Oct 19, 1858	V.
21952	Gardiner, Perry G.	Car-springs	Nov. 2, 1858	X.
19766	Gardiner, S., jr.	Electricity, method of lighting gas by	Mar. 30, 1858	VIII.
20706	Gardiner, S., jr., and L. Blossom	Signal-lights, electric	June 29, 1858	VIII.
19736	Gardner, E. S., assignor to himself and John H. Gould.	Railways, city, tracks for	Mar. 23, 1858	IX.
20705	Gardner, H. F., et al. (See Willmott, W. W., assignor.)	Lathe for turning oval frames	June 29, 1858	XIV.
20057	Gardner, J. and W. and G	Railroad-couplings, buffer-heads for	April 27, 1858	IX.
21192	Gardner, M. C.	Picture frames, oval, machinery for preparing	Aug. 17, 1858	XVIII.
20343	Gardner, W.	Fish, apparatus for catching	May 25, 1858	XXII.
19923	Garl, Jacob	Safe, water and fire proof	April 13, 1858	V.
19415	Garlick, John T.	Gin, cotton	Feb. 23, 1858	III.
19768	Garlington, T. C.	Coal, slating, machine for	Mar. 30, 1858	V.
21604	Garretson, T.	Railroad axles, compound	Sept. 28, 1858	X.
22232	Garrett, J. P., and Daniel Steckel	Rake, horse	Dec. 7, 1858	I.
20636	Garrett, P., W. Ferris, and J. Megratten. (See Ferris, Garrett, & Megratten.)	Roofing, metallic	June 22, 1858	IX.
	Garver, Christian			
	Gaston, J. C.			
	Gates, Edwin L. (See Alden & Gates.)			

21668	Gates, P. W., D. R. Fraser, and Thomas Chalmers.	Valves for steam-engines, gearing of cut-off-----	Oct.	5, 1858-----	VI.
22361	Gates, P. W., D. R. Fraser, and Thomas Chalmers.	Engines, steam, cut-off gear of-----	Dec.	21, 1858-----	VI.
19991	Gates, William, jr. (See Miller, Samuel, and William Gates, jr., assignors.)	Sulphuretted ores, treatment of-----	April	20, 1858-----	IV.
19630	Galtman, Isaac-----	Girder, wrought-iron-----	March	16, 1858-----	IX.
21413	Gaylord, Thomas G-----	Potatoes, machine for digging-----	Sept.	7, 1858-----	I.
19502	Gear, Nathaniel-----	Furnaces, hot-air, registers for-----	March	2, 1858-----	V.
22176	Geddes, James W-----	Ashes and garbage safe-----	Nov.	30, 1858-----	XXII.
21953	Geddes, W., and T. Lindsay. (See Lindsay & Geddes.)	Plough-----	Nov.	2, 1858-----	I.
19024	Gee, William-----	Bolting flour-----	Jan.	5, 1858-----	XIII.
19290	Geib, David-----	Car-axle boxes, railroad-----	Feb.	9, 1858-----	X.
19840	Geisendorff, George W. and J. C-----	Car-axles, railroad box-cases and lubricators for-----	April	6, 1858-----	X.
19291	Geisendorff, George W. and J. C-----	Lubricating apparatus for journal-boxes of railroad cars.	Feb.	9, 1858-----	XII.
20871	Geisendorff, Jacob C-----	Railroad car box-case and pedestal-----	July	13, 1858-----	IX.
19086	Gemunder, Albert-----	Guns, spring-----	Jan.	13, 1858-----	XIV.
20058	Gengembre, H. P-----	Gas-meters, liquids for-----	April	27, 1858-----	IV.
20787	Genung, A. A-----	Pump-----	July	6, 1858-----	XI.
19557	George, A. M-----	Hulling rice, mashing for-----	March	9, 1858-----	I.
22177	Gere, Isaac W-----	Window-blind slats, machine for making-----	Nov.	30, 1858-----	IX.
20420	German, John, jr., and S. R. Perkins-----	Smut-machine-----	June	1, 1858-----	XIII.
20778	Getty, Henry-----	Faucet-----	July	6, 1858-----	XI.
20872	Ghornley, B. F-----	Washing-machine-----	July	13, 1858-----	XVII.
22420	Gibbony, A. F-----	Looms, shuttle-boxes for-----	Dec.	29, 1858-----	III.
20999	Gibbs, Ivers-----	Planing-machines, rotary stock for holding the cutters in.	July	27, 1858-----	XIV.
21129	Gibbs, James E. A-----	Sewing-machine-----	Aug.	10, 1858-----	III.
21751	Gibbs, James E. A-----	Sewing-machine-----	Oct.	12, 1858-----	III.
573	Gibbs, James E. A., assignor to J. A. Ruckman-----	Sewing-machine-----	July	13, 1858-----	Reissue.
21924	Gibbs, L. H., assignor to Gibbs Arms Company-----	Rifles, breech-loading, patching balls for-----	Oct.	26, 1858-----	XIX.
1003	Gibbs, S. W-----	Stove, cooks'-----	May	11, 1858-----	Design.
1004	Gibbs, S. W., assignor to Rathbone & Co-----	Stove, parlor-----	May	11, 1858-----	Design.
1005	Gibbs, S. W., assignor to Rathbone & Co-----	Stove plates-----	June	22, 1858-----	Design.
21639	Gibson, E. G., assignor to H. G. Finkham-----	Clothes-dryer-----	Sept.	28, 1858-----	XVII.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20944	Gibson, J. E.	Boat, canal.	July 20, 1858.	VII.
20873	Gibson, Samuel.	Trap for animals.	July 13, 1858.	XXII.
19694	Gies, C.	Washstand, water-tight.	March 23, 1858.	XVII.
19087	Gilbert, H. (See Widmer, J., assignor.)	Elevator, hay and straw.	Jan. 12, 1858.	XII.
19841	Gill, James H.	Vessels, means for protecting tiller-ropes of, from fire.	April 6, 1858.	VII.
20421	Gillam, Micah.	Horse-power.	June 1, 1858.	XIII.
20203	Gilmore, Edwin W.	Can, preserve.	May 11, 1858.	XVII.
19842	Gilmore, Henry H.	Tongs, pipe.	April 6, 1858.	II.
20241	Givcen, Shaw, & Clark. (See Shaw, Clark, & Givcen.)	Hay, forks for elevating.	May 11, 1858.	I.
19359	Gladwing, C. E. and J. N., assignors to Charles E. Gladding.	Plane-iron to its stock, method of securing the.	Feb. 16, 1858.	XIV.
22421	Gladwin, P. A.	Fastener, sash.	Dec. 29, 1858.	II.
20264	Gleason, F. E.	Car-coupling, railroad.	May 18, 1858.	X.
19695	Glennon, Robert.	Roofing cement composition.	March 23, 1858.	IX.
22117	Glover, C. W., and B. Murray, <i>et al.</i> (See Van Doren, John, assignor.)	Straw-carriers.	Nov. 23, 1858.	I.
22473	Glover, Carlos W.	Stacking agricultural products.	Dec. 28, 1858.	I.
22075	Glover, Henry.	Astronomical instruments.	Nov. 16, 1858.	VIII.
20344	Glover, N. J.	Turning irregular forms, machine for.	May 25, 1858.	XIV.
22362	Glynn, Henry.	Medicated fabrics.	Dec. 21, 1858.	XX.
19247	Goben, Levi F.	Engine, steam, rotary.	Feb. 2, 1858.	VI.
19330	Goddard, Kingston.	Hydrant.	Feb. 9, 1858.	XI.
22233	Goddard, Paul B.	Composition for purifying gas.	Dec. 7, 1858.	IV.
22363	Godfrey, Edward K.	Paper-file.	Dec. 21, 1858.	XVIII.
19844	Goffin, F. C.	Boot-jack and burglars' alarm, combined.	April 6, 1858.	XVII.
19845	Golden, A. H.	Lantern.	April 6, 1858.	V.

21253	Goldsmith, M. (See Hatfield & Goldsmith.)	Cartridge for fire-arms.....	Aug. 24, 1858.....	XIX.
1069	Gomez, E., and W. Mills.....	Fences, iron.....	Nov. 30, 1858.....	Design.
19558	Gomez, Edwin.....	Vehicles, fifth wheel for.....	March 9, 1858.....	X.
22118	Goodale, H. T.....	Gearing.....	Nov. 23, 1858.....	XIII.
21232	Goodes, E. A.....	Lathe, chuck for.....	Aug. 17, 1858.....	XIV.
	Goodfellow, S., assignor to himself and John Fish.			
20707	Goodwin, L.....	Button fastening.....	June 29, 1858.....	XXI.
22076	Goodyear, Albert (2d).....	Feed-boxes for animals, automatic.....	Nov. 16, 1858.....	I.
556	Goodyear, Charles.....	India-rubber fabrics.....	June 15, 1858.....	Extension.
	Goodyear, H. B., administrator of N. Goodyear, deceased.	Rubber, hard, manufacture of.....	May 18, 1858.....	Reissue.
557	Goodyear, H. B., administrator of N. Goodyear, deceased.	Rubber, hard, manufacture of.....	May 18, 1858.....	Division of reissue.
21829	Gordon, Ebenezer.....	Photographic shield.....	Oct. 19, 1858.....	XVIII.
529	Gordon, George P.....	Printing press.....	Feb. 23, 1858.....	Reissue.
581	Gordon, George P.....	Printing press.....	Aug. 10, 1858.....	Reissue.
624	Gordon, George P.....	Printing press.....	Nov. 16, 1858.....	Reissue.
20874	Gordon, George P.....	Printing presses.....	July 13, 1858.....	XVIII.
20204	Gordon, George P., and F. O. Degener.....	Printing press.....	May 11, 1858.....	XVIII.
21047	Gordon, Thomas, assignor to Charles H. Bullard.....	Steam-heating apparatus.....	July 27, 1858.....	VI.
	Gordon, W. J. (See Green & Gordon.)			
19360	Gore, Henry. (See Houck & Gore.)	Harvesters, cutters for.....	Feb. 16, 1858.....	I.
21491	Gore, John.....	Valve-slide, combination of a governor with a.....	Sept. 14, 1858.....	VI.
22286	Gornal, Richard.....	Bullets, hollow, machine for making.....	Dec. 14, 1858.....	XIX.
20422	Goshon, J. G., and W. Bowers.....	Grain, machine for cleaning.....	June 1, 1858.....	XIII.
	Goss, Senter, & Woodworth. (See Sherwood Allen, assignor.)			
19846	Gould & Wright. (See Wright & Gould.)	Collar blocks, horse.....	April 6, 1858.....	XVI.
21193	Gould, E. D.....	Lock.....	Aug. 17, 1858.....	II.
20423	Gould, Fayette.....	Valves, steam.....	June 1, 1858.....	VI.
	Gould, John H. (See Gardner, E. S., assignor.)			
	Goulding, Henry.....			
	Gove, Francis N., et al. (See Moore, Isaac, assignor.)			
22287	Grader, George W., and Benjamin F. Cowan.....	Gauge, steam, and water alarm for steam-boilers	Dec. 14, 1858.....	VI.
	Gragg, Moses H., et al. (See Shav, Henry F., assignor.)			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19559	Granger, R. D .....	Mill, grinding.....	March 9, 1858.....	XIII.
20265	Granger, R. D .....	Stove, cooking.....	May 18, 1858.....	V.
20846	Granger, W. J., assignor to D. J. Lake and C. B. Brown.....	Metal, punch for perforating.....	July 6, 1858.....	II.
19769	Grant, James.....	Horse-power machine .....	March 30, 1858.....	XIII.
20059	Grassle, J. F.....	Roofing tiles.....	April 27, 1858.....	IX.
19532	Gratz, R. H., and W. Hopper. (See Lloyd, C. C., assignor.) Gray, A. (See Taggart & Gray.) Gray, Joshua, assignor to himself and George O. Brastow.	Sewing-machine.....	March 2, 1858.....	III.
19665	Gray, Joshua, assignor to himself and T. B. McKay.	Sewing-machine.....	March 16, 1858.....	III.
20060	Gray, S. H.....	Pump-coupling.....	April 27, 1858.....	XI.
21560	Gray, S. H.....	Pump.....	Sept. 21, 1858.....	XI.
21296	Gray, William H., assignor to himself and A. G. Brown.	Chain-stopper.....	April 20, 1858.....	VII.
19292	Gregg, Mahlon.....	Tenons on spokes, machines for cutting.....	Feb. 9, 1858.....	XIV.
19293	Gregor, W.....	Shingle-machine.....	Feb. 9, 1858.....	XIV.
22073	Gregory, A.....	Hammer, hand.....	Nov. 16, 1858.....	II.
20424	Gregory, George W. (See J. F. Tozer, assignor.) Greek, John. (See Mahaffy, W. A., assignor.)	Suspender, shoulder-brace .....	June 1, 1858.....	XXI.
20708	Greeley, B. J.....	Pantaloons .....	June 29, 1858.....	XXI.
21333	Green, Charles.....	Spinning machinery, top-rollers for.....	Aug. 31, 1858.....	III.
21254	Green, Francis M.....	Corn-stalks in the field, machine for cutting up.....	Aug. 24, 1858.....	I.
561	Green, Henry.....	Harvester, cutting device for.....	May 25, 1858.....	Reissue.
562	Green, Henry.....	Mowing-machine .....	May 25, 1858.....	Division of reissue.
563	Green, Henry.....	Mowing-machine, reel supporters in.....	May 25, 1858.....	Division of reissue.

574	Green, Henry	Harvester, cutting device for	May 25, 1858	Division of reissue.
20126	Green, H., and W. J. Gordon, assignor to Henry Green.	Nail-machine	April 27, 1858	II.
21954	Green, Oliver C.	Straw-cutter	Nov. 2, 1858	I.
22364	Green, Plymon B.	Cars, railroad, seats and couches for	Dec. 21, 1858	X.
20266	Green, Ray	Corn-sheller	May 18, 1858	I.
19735	Green, Samuel. (See McLean, Donald, assignor.)	Belt-coupling	March 23, 1858	XIII.
22072	Green, Samuel, assignor to Silas B. Green.	Straw-cutter	Nov. 16, 1858	I.
20153	Green, Sarah, <i>et al.</i> (See Ball Thomas C., assignor)	Lamp, burner for vapor	May 4, 1858	V.
19603	Green, Wilson, and Malcom McFisher	Corn-sheller	March 9, 1858	I.
19410	Greene, Daniel G., assignor to himself and George H. Greene.	Tool, expanding	Feb. 23, 1858	II.
19770	Greenhalgh, James, jr.	Dolls' heads, constructing	March 30, 1858	XVIII.
22074	Greiner, Ludwig	Harvester, binding attachment to	Nov. 16, 1858	I.
20789	Grey, William	Screw, machine for turning the heads and for nicking.	July 6, 1858	II.
20486	Griggs, Ira, assignor to Utica Screw Manufacturing Company.	Bed-bottoms	June 8, 1858	XVII.
20061	Griffin, B.	Harvesters, raking attachment for	April 27, 1858	I.
20847	Griffith, G. V.	Indicators, water and steam	July 6, 1858	VI.
20848	Griffith, William M., & Co. (See Orr, W. H., assignor.)	Gauge, pressure	July 6, 1858	VI.
21468	Grimes, William C., assignor to David Matthew	Steam-pressure and water-indicator	Sept. 7, 1858	VI.
20487	Grimes, William C., assignor to David Matthew	Desks, writing	June 8, 1858	XXII.
20875	Grimsley, J. H., and P. J. Aukney	Fire-escape ladders	July 13, 1858	XI.
192	Grimsley, Joseph H.	Lime-kiln	Feb. 23, 1858	Add'l imp't.
21334	Griscom Powell and Charles S. Denn	Boots and shoes, method of stretching	Aug. 31, 1858	XVI.
19631	Griswold, George W.	Nail-machine, cut	March 16, 1858	II.
21414	Griswold, P., and H. H. Seeley. (See Seeley & Griswold)	Harvesters, cutting device of	Sept. 7, 1858	I.
19697	Grodhaus, G. C.	Engines, rotary, steam	March 23, 1858	VI.
21955	Gronberg, C. P.	Cup, drinking	Nov. 2, 1858	XXII.
20345	Groomes, James B.	Irregular forms, cutter-head and table-rest for cutting.	May 25, 1858	XIV.
21605	Grosch, Michael, and Peter H. Jackson	Vault-lights, metallic frames for	Sept. 28, 1858	IX.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20709	Ground, R. B.	Planter, seed	June 29, 1858	I.
19843	Grove, John P. and John Grover, Potter, & Baker. (See Blodgett, S. C., assignor through N. Hunt.)	Puddling furnace	April 6, 1858	II.
20849	Grover, L. A., assignor to himself and N. T. Spear.	Corn-huskers	July 6, 1858	I.
21669	Grover, W. O.	Sewing-machine	Oct. 5, 1858	III.
21670	Grover, W. O.	Sewing-machine	Oct. 5, 1858	III.
21671	Grover, W. O.	Sewing-machine	Oct. 5, 1858	III.
21752	Grover, W. O.	Sewing-machine	Oct. 12, 1858	III.
568	Grover, W. O., and W. E. Baker, assignors to the Grover & Baker Sewing-Machine Company.	Sewing-machine	June 15, 1858	Reissue.
572	Grover, W. O., and W. E. Baker, assignors to the Grover & Baker Sewing-machine Company.	Sewing-machines	July 6, 1858	Reissue.
	Gruol, John	Splints, attachment of adjustable foot-boards to	July 5, 1858	XX.
	Guinet, M. J. A. (See Mathieu, Adolphe Nicholas, assignor.)			
20267	Guirand, A. (See Vascon & Guirand.)	Fabric, thick woven	May 18, 1858	III.
19417	Gujer, John	Gins, cotton	Feb. 23, 1858	III.
19192	Gullett, B. D.	Car-brake, railroad	Jan. 26, 1858	X.
206	Gumaer, Samuel	Bolt, swing, for fastening shutters	Sept. 28, 1858	Add'l imp't.
19193	Gunner, J., jr.	Shingle-machines, device for shifting the bolt to effect the taper in.	Jan. 26, 1858	XIV.
	Guseman, W. D.			
19224	Gwynne, James S., assignor to Samuel Nicholson.	Hydraulic engine	Jan. 26, 1858	XI.
19362	Haas, Sebastian	Window-frames	Feb. 16, 1858	IX.
20488	Habich, George	Beer, manufacture of, apparatus for	June 8, 1858	IV.
22234	Hackman, Henry, jr.	Door-latch	Dec. 7, 1858	II.
22235	Hadcock, John W., and Parker Wilcox	Rake, horse	Dec. 7, 1858	I.
20642	Hafer, A., and G. Wilkinson	Spokes in hubs, machine for setting	June 22, 1858	XIV.
21130	Hagan, John C.	Locomotive steam-engine	Aug. 10, 1858	VI.
	Hagans, H. (See Wells & Hagans.)			

20470	Hagar, E. L., assignor to himself and T. D. Aylsworth.	Clothes, machine for wringing	June	1, 1858	XVII.
549	Hager, A., and Y. Allyn	Furnace, bagasse	May	4, 1858	Reissue.
19773	Hagey, G. W.	Table, self-waiting	Mar.	30, 1858	XVII.
545	Haines, J. H. (See Hunt & Haines)				
19419	Haines, Jonathan	Harvesters, grain	April	13, 1858	Reissue.
	Haines, Joseph C.	Ladle, culinary	Feb.	23, 1858	XVII.
21830	Haines, M. J. (See Kuhns & Haines.)				
	Haines, Richardson. (See Robins, Jabez, assignor.)				
21335	Halderman, William	Stave-jointer	Oct.	19, 1858	XIV.
20641	Hale, Albert W.	Bell, house, portable	Aug.	31, 1858	XVII.
21000	Hale, Elias J.	Lamps, camphene	June	22, 1858	V.
22236	Hale, R.	Steam, apparatus for distributing	July	27, 1858	VI.
20154	Haley, John G., Isaac Wilson, and Jackson Lyon.	Washing-machine	Dec.	7, 1858	XVII.
19140	Hall, A.	Washing-machine	May	4, 1858	XVII.
20876	Hall, Ashman	Grain-separator	Jan.	19, 1858	I.
	Hall, E., and J. F. Stewart.	Shingle-machine	July	13, 1858	XIV.
19172	Hall, Gaylon. (See Heth & Hall.)				
20242	Hall, H. L., assignor to the Beverly Rubber Co.	Rubber, restoring waste vulcanized	Jan.	19, 1858	IV.
22217	Hall, H. L., assignor to the Beverly Rubber Co.	Rubber, utilizing waste vulcanized	May	11, 1858	IV.
	Hall, Hiram L., assignor to the Beverly Rubber Company.	Rubber, restoring waste vulcanized	Dec.	1, 1858	IV.
22265	Hall, Hiram L., assignor to the Beverly Rubber Company.	Rubber goods, vulcanized, manufacture of	Dec.	7, 1858	IV.
19418	Hall, J. H.	Diapers, infants', substitute for	Feb.	23, 1858	XXI.
20638	Hall, J. R.	Shingle-machine	June	22, 1858	XIV.
22366	Hall, John C.	Fans, portable, manufacture of	Dec.	21, 1858	XXI.
19560	Hall, Joseph F.	Curtain fixtures	Mar.	9, 1858	XVII.
20269	Hall, John M.	Plough	May	18, 1858	I.
20425	Hall, Marquis L.	Grain-cleaning machines	June	1, 1858	I.
21956	Hall, Pliny F.	Railroad chairs	Nov.	2, 1858	IX.
21194	Hall, Robert. (See Mullen & Hall.)				
	Hall, S. W.	Mitres, machine for cutting	Aug.	17, 1858	XIV.
22365	Hall, Theodore F. (See Hart, R., assignor.)				
20125	Hall, Theodore F.	Window-sash, hanging	Dec.	21, 1858	IX.
19562	Hall, Thomas, assignor to Thomas Hall & Co.	Nets, fishing	April	27, 1858	XXII.
20793	Hall, Washington	Stump-extractor	Mar.	9, 1858	IX.
	Hall, William	Railways, chair for	July	6, 1858	IX.
19568	Hall, Wm. Kemble	Boilers, steam, safety apparatus for	Mar.	9, 1858	VI.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21721	Hall, Wm. Kemble, assignor to Amos Broadnax--	Leather, artificial-----	Oct. 5, 1858-----	XVI.
20271	Hallenbeck, M-----	Harvesters-----	May 18, 1858-----	I.
20272	Hallenbeck, M-----	Harvesters-----	May 18, 1858-----	I.
20426	Hallock, H-----	Vessels, navigable buoyant life-preserving state- rooms for.	June 1, 1858-----	VII.
21415	Hallock, Nicholas-----	Fruit box-----	Sept. 7, 1858-----	XVII.
1031	Ham, R., assignor to Smith, Sheldon, & Co-----	Stoves, cooks'-----	Aug. 3, 1858-----	Design.
19194	Hamer, James A-----	Pug mill-----	Jan. 26, 1858-----	XV.
22119	Hamer, James A-----	Brick moulds-----	Nov. 23, 1858-----	XV.
20428	Hamilton, F. W-----	Washstand and night-stool combined-----	June 1, 1858-----	XVII.
19632	Hamilton, George W., assignor to himself and Oliver P. Bower.	Life-preserving float-----	Mar. 16, 1858-----	VII.
22422	Hamilton, James-----	Propeller for boats-----	Dec. 28, 1858-----	VII.
19772	Hamilton, James J-----	Clothes-dryer-----	Mar. 30, 1858-----	XVII.
20063	Hamilton, James J-----	Lock for doors-----	April 27, 1858-----	II.
19633	Hamilton, Robert-----	Drill, seed-----	Mar. 16, 1858-----	I.
21195	Hammer, Adolph-----	Heating wash-tubs, apparatus for-----	Aug. 17, 1858-----	V.
20427	Hammond, D. D-----	Windlass-----	June 1, 1858-----	VII.
	Handerson & Davis. (See Ball, Thos., assignor.)			
	Handy, Anson. (See North, John, assignor.)			
	Handford, W. L. (See Collins, D., assignor.)			
	Hanley, James. (See Stephens & Hanley.)			
	Hannah, Joseph, and D. K. Jackman. (See Cum- mings, G. W., assignor.)			
	Hannay & Plant. (See Plant, P., assignor.)			
19771	Hannen, Henry-----	White lead, apparatus for manufacturing-----	Mar. 30, 1858-----	IV.
19634	Hannum, L-----	Washing-machine-----	Mar. 16, 1858-----	XVII.
20710	Hanscom, A. A-----	Ink rollers-----	June 29, 1858-----	XVIII.
21336	Hansell, Issachar P-----	Drawing-boards-----	Aug. 31, 1858-----	XVIII.
21753	Harbough, W. H-----	Water-wheel-----	Oct. 12, 1858-----	XI.
	Harding, L., et al. (See Weatherbee, E. D., assign'r.)			

19894	Harding, Thomas, assignor to Warder, Brokaw, & Child.	Reaping and mowing machine, cutting device for.	April	6, 1858	I.
22288	Hardy, Michael	Hat bodies, machinery for forming.	Dec.	14, 1858	III.
21535	Hardy, W., and J. Parkinson, assignors to Hardy, Parkinson, & Bates.	Valve, pressure and vacuum.	Sept.	14, 1858	VI.
22423	Harger, Henry	Typographer, mechanical.	Dec.	28, 1858	XVIII.
19363	Harkness, H. W.	Harpoon and lance.	Feb.	16, 1858	VII.
21298	Harkness, H. W., assignor to himself and J. W. Bliss.	Anchor balls.	Aug.	24, 1858	VII.
21297	Harkness, H. W., and W. A. Terry, assignors to themselves and Joseph Sigourney.	Broiling, toasting, &c., apparatus for.	Aug.	24, 1858	V.
22143	Harkness, Hiram W., assignor to himself and Willford H. Nettleton.	Sewing-machine.	Nov.	23, 1858	III.
21754	Harkness, John C.	Door, self-closing.	Oct.	12, 1858	IX.
22249	Harnett, J. W. (See Waters & Harnett.) Harnett, John Warren.	Preventing incrustation of steam-boilers.	Dec.	7, 1858	IV.
20062	Harper, T. B. Harper, William, jr. (See Francis, Jerome B., assignor.)	Churn	April	27, 1858	I.
21755	Harrington, Barzillai, and Nelson Russell	Tanning.	Oct.	12, 1858	XVI.
21070	Harrington, Charles L.	Cars, sleeping, for railroads.	Aug.	3, 1858	X.
20607	Harrington, F. H., assignor to Horace Smith and Daniel B. Wesson.	Fire-arm, revolving.	June	15, 1858	XIX.
21131	Harris & Clark. (See Clark & Harris.)	Rack, clothes.	Aug.	10, 1858	XVII.
571	Harris, A. A. Harris, B. T., assignor to M. E. Harris.	Workmen, machine for marking time of attendance of.	July	6, 1858	Reissue.
19141	Harris, Daniel.	Sewing-machine.	Jan.	19, 1858	III.
21673	Harris, Daniel	Carpet-sweeper.	Oct.	5, 1858	XVII.
21672	Harris, Daniel Harris, E. A., administratrix. (See Stillman, Alfred, deceased.)	Sewing-machines.	Oct.	5, 1858	III.
20790	Harris, Hubbard. (See Richardson, Alpha, deceased.)	Plough.	July	6, 1858	I.
19924	Harris, J. P. Harris, John.	Drill, seed.	April	13, 1858	I.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21804	Harris, John K.-----	Harvester -----	Oct. 12, 1858-----	I.
20396	Harris, Joseph -----	Brakes, railroad-----	May 25, 1858-----	IX.
19465	Harris, Joseph, jr., and Daniel Holmes, assignors to Daniel Holmes.	Carpet-beating machine -----	Feb. 23, 1858-----	XVII.
19849	Harris, L. W.-----	Potato-digger-----	April 6, 1858-----	I.
21047	Harris, Washington, and John S. Clark. (See Beesley, J., assignor.)	Photographic cameras, diaphragm for -----	Sept. 7, 1858-----	XVIII.
625	Harrison, Edward-----	Mills, grinding-----	Nov. 16, 1858-----	Reissue.
20273	Harrison, James-----	Signs -----	May 18, 1858-----	XVIII.
621	Harrison, James-----	Locomotives, automatic steam whistles in-----	Nov. 9, 1858-----	Reissue.
21255	Harrison, James, jr-----	Springs, metallic-----	Aug. 24, 1858-----	X.
600	Harrison, James, jr-----	Sewing-machine-----	Sept. 14, 1858-----	Reissue.
22120	Harrison, Joshua-----	Ranges, cooking-----	Nov. 23, 1858-----	V.
20791	Harrison, R. H.-----	Washing-machine -----	July 6, 1858-----	XVII.
21925	Hart, R., assignor to Theodore F. Hall-----	Hinges-----	Oct. 26, 1858-----	II.
21831	Hartell, Thomas R.-----	Bottles, &c , apparatus for making glass stoppers for.	Oct. 19, 1858-----	XV.
22428	Hartell, Thomas R.-----	Furnaces for burning lime -----	Dec. 28, 1858-----	V.
616	Hartell, William, and Joseph Lancaster, assignors to Thomas R. Hartell.	Heat, generating, mode of -----	Nov. 2, 1858-----	Reissue.
21494	Harthan, John and Ezra-----	Engine, steam, rotary-----	Sept. 14, 1858-----	VI.
19361	Hartman, H. T.-----	Railroad snow plough -----	Feb. 16, 1858-----	IX.
19466	Hartman, John, jr., assignor to John Hartman, sr-----	Weighing mechanism applied to the carts of coal dealers and others, construction and arrangement of the	Feb. 23, 1858-----	XII.
21469	Hartman, John, jr., assignor to John Hartman, sr-----	Cars, railroad; couch seats for -----	Sept. 7, 1858-----	X.
20792	Hartman, S. H. -----	Springs, machine for testing the strength of-----	July 6, 1858-----	XII.
20268	Hartman, Samuel H -----	Carriage springs, forming the heads of-----	May 18, 1858-----	X.
22250	Hartwell, C.-----	Stoves -----	Dec. 7, 1858-----	V.
19661	Hartwell, Charles, assignor to Lewis L. Bartlett-----	Sash, metallic-----	Mar. 16, 1858-----	IX.

21878	Hartwell, Samuel E. Harvey, J. (See Vandenburg & Harvey.) Harvey, J. M. (See Becker & Harvey.) Harvey, John Harvey, John M., and N. J. Becker Harvey, Thomas W., assignor to Charles Ely, assignor to H. A. Harvey.	Bedstead-bottom Windlass Railroad station indicator Screws, machine for cutting Rails, T, joint for Motion, converting reciprocating into rotary Table, writing Dryers, grain and fruit Printing presses, hand Ships, method of coppering the interior of, to protect them from lightning. Planter, corn Seeding-machines Churn Sound, tube for conveyance of Stoves (Viola) Stoves (Leader) Stoves (Consul) Stoves (Pride of the West) Clothes-frame Scissors, manufacture of Boilers, steam, sediment collector for Halters and bridles for horses Sawing-mill Sawing-mill Planter, potato	Oct. June April Dec. Nov. April Oct. Nov. June July June Nov. July Aug. Jan. Jan. Jan. Jan. Dec. Dec. Dec. Oct. May Mar. Feb.	25, 1858 15, 1858 6, 1858 28, 1858 2, 1858 6, 1858 19, 1858 23, 1858 15, 1858 13, 1858 22, 1858 2, 1858 13, 1858 3, 1858 12, 1858 12, 1858 12, 1858 12, 1858 21, 1858 21, 1858 1, 1858 5, 1858 11, 1858 30, 1858 9, 1858	XVII. VII. IX. Reissue. IX. XIII. XVII. V. XVIII. VII. I. I. I. XI. Design. Design. Design. Design. XVII. II. VI. XVI. Reissue. XIV. I.
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*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21471	Hay, Wilmarth, & Coffin. (See Wilmarth, Hay, & Coffin.)	Railroad chair-----	Sept. 7, 1858-----	IX.
19027	Hayden, John J.----- Hayden Manufacturing Company. (See Richard-son, B., assignor.)	Telegram keys, method of operating-----	Jan. 5, 1858-----	VIII.
20640	Hayes, John P.-----	Furnace, air-heating-----	June 22, 1858-----	V.
21675	Haynes, Reuben-----	Laths, machine for cutting-----	Oct. 5, 1858-----	XIV.
21196	Haythorn, J. (See Rice & Haythorn.)	Wrench-----	Aug. 17, 1858-----	II.
20637	Hayward, F. D.-----	Corn-husker-----	June 22, 1858-----	I.
21337	Hazleton, J. . (See Pratt, George, assignor.)	Sad-iron-heater cover-----	Aug. 31, 1858-----	XVII.
19142	Heaton, John D., and W. A. Clark-----	Corn-husker-----	Jan. 19, 1858-----	I.
19635	Heaton, William-----	Fruit, apparatus for drying-----	Mar. 6, 1858-----	XVII.
19935	Hebbard, A.-----	Car-couplings, railroad-----	April 13, 1858-----	X.
988	Hebbard, Henry, and John Polhamus-----	Spoons, &c., handles of-----	Feb. 16, 1858-----	Design.
19775	Heberling, T. H. (See Denley & Heberling.)	Heating apparatus-----	Mar. 30, 1858-----	V.
20489	Hedenberg, Francis L.-----	Table, extension-----	June 8, 1858-----	XVII.
21416	Heerdt, W.-----	Roasters, coffee-----	Sept. 7, 1858-----	V.
19088	Heerman, Theodore-----	Vehicles, wheel-----	Jan. 12, 1858-----	X.
21166	Heiden, J.-----	Lamp, burner for vapor-----	Aug. 10, 1858-----	V.
21073	Heidrick, F., assignor to C. F. Clothier-----	Fence, field-----	Aug. 3, 1858-----	IX.
20879	Heikes, D. M.-----	Tailors' shears-----	July 13, 1858-----	XXI.
	Heinisch, R.-----			
	Hellings, John. (See Smith, Benjamin R.)			
19421	Helton, M. W.-----	Mills, cider-----	Feb. 23, 1858-----	XIII.
21495	Hely, Georges-----	Horse-powers-----	Sept. 14, 1858-----	XIII.
19992	Henck, John B.-----	Rails for street railroads-----	April 20, 1858-----	IX.
20794	Henderson, G., and J. Steetle-----	Metals, lathe for turning-----	July 6, 1858-----	II.

20274	Henderson, J. C.	Stoves	May	18, 1858	V.
622	Henderson, Joseph C.	Stoves	Nov.	9, 1858	Reissue.
20155	Henderson, W. H.	Eave-troughs, braces of	May	4, 1858	IX.
21496	Hendrick, A. T.	Hinge, gate	Sept.	14, 1858	II.
19660	Hendrick, Joseph E., assignor to himself and William Holmes.	Sewing-machines	Mar.	16, 1858	III.
21722	Hendrick, Joseph E., assignor to himself, W. H. Nettleton, and George Stevens.	Sewing-machines	Oct.	5, 1858	III.
19354	Hendrickson, Derius J.	Nails, tools for clenching	Feb.	16, 1858	II.
20064	Hendrickx, A.	Range and coal-gas generator, combination cooking	April	27, 1858	V.
21001	Hendrickx, A.	Gas apparatus, valves for	July	27, 1858	IV.
21072	Hendrickx, A., assignor to Victoria Hendrickx	Gas, apparatus for condensing and purifying	Aug.	3, 1858	IV.
22399	Heneage, Robert, assignor to himself and Edward O. Ball.	Hemp-brake	Dec.	21, 1858	III.
19606	Henn, J., assignor to himself, Anton, Daniel, and Leopold Lankan.	Tools to handles, attaching	Mar.	9, 1858	II.
21959	Henry, W. Y.	Seeding-machine	Nov.	2, 1858	I.
21561	Henshaw, F.	Pump	Sept.	21, 1858	XI.
21879	Henshaw, J. R.	Hook, self-mousing	Oct.	26, 1858	VII.
20971	Henwood, D., and J. Stephens, assignors to themselves and Thomas F. Rowland.	Hulling and cleaning rice, machine for	July	20, 1858	I.
21417	Herder, A.	Window-blinds	Sept.	7, 1858	IX.
22121	Hermance, M. Richard.	Stove, cooking	Nov.	23, 1858	V.
22023	Hermance, William G.	Gates, farm, method of opening and closing	Nov.	9, 1858	IX.
21233	Herrick, H. H., assignor to L. Culver.	Carpet-sweeper	Aug.	17, 1858	XVII.
	Herrick, Harlow. (See White, Samuel, assignor.)				
	Herringshaw, Westbrook, & Parker. (See Parker, Sidney, assignor.)				
20557	Herron, A. C.	Sewing-machine	June	15, 1858	III.
19089	Herron, James P.	Ventilating pulpits, apparatus for	Jan.	12, 1858	V.
19973	Hersh, H. B. Banman, and H. C. Lacker.	Alarm, burglars'	April	13, 1858	XXII.
19561	Hersh, Henry and Amos	Cutting and crushing corn-stalks, machine for	March	9, 1858	I.
19926	Hervey, H. L.	Alarm lock	April	13, 1858	XXII.
19295	Hervey, Horace L.	Alarm locks	Feb.	9, 1858	XXII.
21256	Heth, Albert, and Gaylon Hall	Sawing-machine, cross-cut	Aug.	24, 1858	XIV.
	Hewitt, John. (See Loomis & Hewitt.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Heywood Chair Company. (See Foster, S. E., assignor.)			
19195	Heywood, R. W.	Ice in rivers, machine for planing away.	Jan. 26, 1858.	XXII.
21880	Heywood, Simeon.	Switch, railroad.	Oct. 26, 1858.	IX.
22425	Hiatt, S.	Lock.	Oct. 28, 1858.	II.
	Hibbard, Elias. (See Nutz, L. N., assignor.)			
20346	Hibbard, H. F. (See Clinton, Miles N., assignor.)	Press, cheese.	May 25, 1858.	XII.
21756	Hibbard, J.	Pump, centrifugal.	Oct. 12, 1858.	XI.
20795	Hibbs, J.	Wagons, running-gear of.	July 6, 1858.	X.
20880	Hibsch, George.	Pump.	July 13, 1858.	XI.
19425	Hickok, W. O.	Straw-cutter.	Feb. 23, 1858.	I.
21961	Hickok, W. O.	Wooden screws, die for cutting.	Nov. 2, 1858.	XIV.
21960	Hickok, W. O.	Wooden screws, tap for cutting.	Nov. 2, 1858.	XIV.
21132	Hicks, George B.	Telegraphic instruments.	Aug. 10, 1858.	VIII.
21497	Hicks, L. E.	Gas-burner.	Sept. 14, 1858.	V.
19613	Hicks, Lucien E., assignor to David C. Field.	Inkstand.	March 9, 1858.	XVIII.
21133	Hidden, W., and J. Reeves.	Motive-power, apparatus for heating and cooling air to be used as a.	Aug. 10, 1858.	XIII.
	Higbie, W. (See King, John, assignor.)			
19850	Higgins, L., and A. Brown.	Sails, reefing.	April 6, 1858.	VII.
21338	Higgs, James R.	Hydrant.	Aug. 31, 1858.	XI.
19196	Hildreth, Abel.	Alarm, tidal.	Jan. 26, 1858.	XXII.
19423	Hildreth, G. W.	Seeding-machine.	Feb. 23, 1858.	I.
21257	Hildreth, Paul.	Seeding-machine.	Aug. 24, 1858.	I.
21797	Hiler, Selah, assignor to John M. and Cornelius A. Berrian.	Coating metals.	Oct. 12, 1858.	IV.
	Hill, B. B., and S. W. Adams.			
19028	Hill, Edmund.	Bit-holder.	Jan. 5, 1858.	XIV.
21676	Hill, George J.	Traps, animal, construction of.	Oct. 5, 1858.	XXII.
21418	Hill, Levi G.	Printing and numbering press.	Sept. 7, 1858.	XVIII.
20558	Hill, Samuel A. (See Alter & Hill.)	Burning fluids, manufacture of.	June 15, 1858.	V.

21798	Hill, Samuel L., assignor to himself and A. Palmer, and A. S. Doan.	Spelling-block	Aug. 12, 1858	XVIII.
19296	Hill, U. C. and C. F.	Musical instruments	Feb. 9, 1858	XVIII.
19851	Hills, Andrew. (See Pickett & Hills.)	Row-lock	April 6, 1858	VII.
21339	Hills, James H.	Alarm, prison, apparatus for	Aug. 31, 1858	XXII.
21002	Hinds, William	Wheelwright's-machine	July 27, 1858	XIV.
21592	Hinckley, Jonas, assignor to himself and F. A. Wildman.	Sewing-machine.	Sept. 21, 1858	III.
19467	Hinman, George, assignor to himself and John H. Pardee.	Scissors-sharpener	Feb. 23, 1858	XVII.
19197	Hitchcock, Rufus E., et al. (See Warner, Ezra J., assignor.)	Heaters or coolers	Jan. 26, 1858	V.
21419	Hoadley, John C.	Clay, machine for moulding	Sept. 7, 1858	XV.
19554	Hoadley, Thomas	Lock.	March 9, 1858	II.
20388	Hoagland, A.	Valve, steam-trap.	May 25, 1858	VI.
21472	Hoard, J. W., assignor to himself and G. B. Wiggin.	Steam-trap	Sept. 7, 1858	VI.
21198	Hoard, J. W., assignor to himself and G. B. Wiggin.	Nail-plate feeder	Aug. 17, 1858	II.
20559	Hoard, John W., and Thomas A. Searle.	Tire, wheel, reducing	June 15, 1858	II.
19777	Hobson, Iris	Gas-generator	March 30, 1858	IV.
21962	Hobson, W. (See Baltzly & Hobson.)	Lock and key.	Nov. 2, 1858	II.
21926	Hock, John G.	Bedstead, bureau	Oct. 26, 1858	XVII.
20347	Hoffacker, Joseph	Sugar, manufacture of dextrine and	May 25, 1858	IV.
21420	Hoffman, Francis, assignor to himself and John Menzell.	Carriage-shafts, convertible.	Sept. 7, 1858	X.
19468	Hoffman, Theodore A.	Locomotives, walking, manner of attaching legs to.	Feb. 23, 1858	VI.
20560	Hoge, Solomon G., assignor to himself, R. H. St. John, and J. E. Leas.	Fence, field	June 15, 1858	IX.
19563	Hoge, Thomas	Plough	March 9, 1858	I.
19927	Hoke, David	Lock, chronometric	April 13, 1858	II.
19928	Holbrook, A.	Wheelwright's machine	April 13, 1858	XIV.
19636	Holl, Samuel	Blow-pipes	March 16, 1858	V.
22427	Holland, W. (See Ross & Holland.)	Cannon, breech-loading.	Dec. 28, 1858	XIX.
19779	Hollely, Joseph.	Straw-cutter	March 30, 1858	I.
20796	Hollensbury, John W.	Pump, rotary	July 6, 1858	XI.
	Hollman, W. W.			
	Holly, A. P.			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20919	Holly, B., assignor to himself and Jno. S. Edwards.	Stoves, furnaces, &c., atmospheric regulator for	July 13, 1858-----	VI.
20156	Holman, George W-----	Billiard-table cushions-----	May 4, 1858-----	XXII.
21562	Holmes, Alexander M-----	Dentist's chair-----	Sept. 21, 1858-----	XX.
21536	Holmes, Alexander M., assignor to himself and A. G. Purdy.	Car seats and couches-----	Sept. 14, 1858-----	X.
214	Holmes, Alexander M., assignor to himself and Albert G. Purdy.	Car seats and couches-----	Dec. 21, 1858-----	Add'l imp't.
20561	Holmes, D-----	Skirt hoops-----	June 15, 1858-----	XXI.
585	Holmes, Daniel. (See Harris & Holmes, assignors.)	Skirt hoops-----	Aug. 17, 1858-----	Reissue.
22426	Holmes, David-----	Skirts, ladies' hooped-----	Dec. 28, 1858-----	XXI.
	Holmes, John-----			
	Holmes, A. (See Marsh, A., assignor.)			
	Holmes, William, <i>et al.</i> (See Hendrick, Joseph F., assignor.)			
22289	Holt, J. H., and J. H. Gerrould-----	Radiator, steam-----	Dec. 14, 1858-----	V.
20348	Holton, S., jr-----	Thermostat-----	May 25, 1858-----	VIII.
21606	Holyland, J. and J. C-----	Cracker-machine-----	Sept. 28, 1858-----	XVII.
21048	Holzer, Charles F., assignor to William B. Smith and William Bromwell.	Gas-regulator-----	July 27, 1858-----	IV.
20797	Homes, L-----	Railing, iron, method of constructing-----	July 6, 1858-----	IX.
19297	Homrighaus, Philip-----	Mills, hominy-----	Feb. 9, 1858-----	XIII.
20389	Hooffstatter, Charles, assignor to Joseph Firman-----	Stove-----	May 25, 1858-----	V.
21049	Hook, A. H., assignor to Union Sewing-Machine Company.	Sewing-machine-----	July 27, 1858-----	III.
22179	Hook, Albert H-----	Sewing-machine-----	Dec. 1, 1858-----	II.
19503	Hooker, Daniel and Solomon E-----	Coffins-----	Mar. 2, 1858-----	XXII.
21677	Hoole, E-----	Checks, baggage-----	Oct. 5, 1858-----	XXII.
	Hoover, Briggs, Sloan, & Smith. (See Sloan, Smith, Hoover, & Briggs.)			
20528	Hope, J., assignor to himself and T. Hope-----	Engraving-machines, apparatus for supporting and adjusting gravers for.	June 8, 1858-----	XVIII.
19607	Hope, John, assignor to himself and Thos. Hope-----	Engraving-machine, pentagraphic device for-----	Mar. 9, 1858-----	XVIII.

21723	Hope, John, assignor to himself and Thos. Hope.	Printing calico, rollers for	Oct.	5, 1858	XVIII.
19424	Hopkins, D. A.	Journal-boxes	Feb.	23, 1858	X.
21563	Hopkins, Hiram	Smut-machines	Sept.	21, 1858	XIII.
20711	Hopkins, T. R.	Engravers, &c., ring clamp for	June	29, 1858	XVIII.
20712	Hopkins, W. A.	Cultivator	June	29, 1858	I.
20429	Hopper, T.	Car-brakes, railroad	June	1, 1858	X.
22428	Hopper, W. (See Lloyd, C. C., assignor.)	Time-keepers, method of adjusting the tripper to escapement lever of.	Dec.	28, 1858	VIII.
19420	Horn, Edwin B.				
	Horner, James. (See Bailey, John A., assignor.)				
19420	Horning, William	Rake, horse	Feb.	23, 1858	I.
19365	Horrall, W. A., and R. G. Sirwell	Harrow, revolving	Feb.	16, 1858	I.
21498	Horstmann, W. H. (See Shaler, R., assignor.)	Walls under water, method of building	Sept.	14, 1858	IX.
19698	Horstmann, W. H.	Loom, ribbon	Mar.	23, 1858	III.
	Horstmann, William J.				
	Horton, Steffie, & Currie. (See Steffie, Horton, & Currie.)				
21074	Horton, C.	Fence, field	Aug.	3, 1858	IX.
21678	Horton, Hanford	Pistons for steam-engines, packing	Oct.	5, 1858	VI.
1016	Horton, Henry B. (See Thrasher & Horton)	Stoves	June	29, 1858	Design.
20430	Horton, J., assignor to D. Stuart and J. Peterson	Stove, cooking	June	1, 1858	V.
19173	Horton, M. L.	Pump bucket	Jan.	19, 1858	XI.
20066	Horton, William F., assignor to Walter K. Marvin	Harvester, cotton	April	27, 1858	I.
22290	Hosford, M., and J. C. Avery	Harness snaps	Dec.	14, 1858	XVI.
21199	Hotchkiss, B. B.	Mill-spindles, method of securing and adjusting the steps of.	Aug.	17, 1858	XIII.
	Hotchkiss, Gideon				
19366	Houck, George O., and Henry Gore	Brick-machine	Feb.	16, 1858	XV.
19248	Houck, James	Cultivator	Feb.	2, 1858	I.
19993	Houck, James	Nails, clenching horse-shoe	April	20, 1858	II.
22291	Hough, Joseph, and Jacob Moore	Car-brakes	Dec.	14, 1858	X.
19112	Hough, Sylvester A., assignor to himself and A. S. Hough.	Wagon-brake	Jan.	12, 1858	X.
20920	Houghton, A., assignor to himself and E. D. and G. Draper.	Spinning-frames	July	13, 1858	III.
	Houghton, F. B. (See Watt & Burgess, assignors.)				
	Houghton, Francis. (See Fogerty, Valentine, assignor.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20349	House, R. E.	Omnibus-register	May 25, 1858	X.
605	House, Royal E.	Telegraph, magnetic printing	Sept. 28, 1858	Reissue.
19143	Houston, George. (See Parson & Houston.)	File	Jan. 19, 1858	II.
21340	Howard, Jeremiah	Mills for sugar-cane	Aug. 31, 1858	XIII.
20431	Howard, William	Signal-lantern	June 1, 1858	VIII.
20562	Howarth, John	Distilling oils, apparatus for	June 15, 1858	IV.
20945	How, H.	Saw-filing machine	July 20, 1858	II.
19249	How, James, and Charles W. Copeland	Damper regulator	Feb. 2, 1858	V.
21258	Howe, E., jr.	Sewing-machine	Aug. 24, 1858	III.
21640	Howe, Frederick W., assignor to the Newark Machine Company.	Shafting, hangers and boxes for	Sept. 28, 1858	XIII.
19367	Howell, Charles	Reaping and mowing machine	Feb. 16, 1858	I.
19422	Howell, Charles	Harvester	Feb. 23, 1858	I.
19504	Howell, Charles	Mowing-machine	Mar. 2, 1858	I.
20275	Howell, Charles	Reaping and mowing machine	May 18, 1858	I.
21499	Howell, Charles	Harvesters, cutting apparatus for	Sept. 14, 1858	I.
19090	Howell, David	Metal plates, bending, machine for	Jan. 12, 1858	II.
19637	Howes, S., and G. E. Throop	Separator and cleaner, grain	Mar. 16, 1858	XIII.
20157	Howland, William H.	Quartz-crusher	May 4, 1858	II.
21998	Howson, Henry, assignor to J. P. and J. L. Wendell.	Axle-boxes	Nov. 2, 1858	X.
21421	Hoyer, Jacob K.	Meat-cutter	Sept. 7, 1858	XVII.
184	Hoyt, Benaiah C.	Plough	Jan. 5, 1858	Add'l imp't.
19175	Hoyt, George E., and Frederick Nishwitz, assignors to George E. Hoyt.	Coal-screen	Jan. 19, 1858	V.
21757	Hoyt, J. P. and O. W.	Water-wheel	Oct. 12, 1858	XI.
19994	Hoyt, John	Sleds, runners of	April 20, 1858	X.
20798	Hubbard, D. C.	Cultivator	July 6, 1858	I.
20799	Hubbard, G.	Faucet, measuring	July 6, 1858	XI.
21537	Hubbard, G. W., assignor to himself and H. Hubbard, and W. L. and N. L. Bradley.	Sewing-machine	Sept. 14, 1858	III.

21833	Hubbard, George W.	Sewing-machine	Oct.	19, 1858	III.
19298	Hubbard, M. G.	Harvester	Feb.	9, 1858	I.
22251	Hubbard, M. G.	Harvester, grain and grass	Dec.	7, 1858	I.
20713	Hubbard, W. E.	Horse-shoes	June	29, 1858	II.
	Hubbell, H. S. (See Wood, Roberts, & Hubbell.)				
521	Hubbell, William W.	Shells, eccentric, explosive	Jan.	19, 1858	Reissue.
19505	Hubbell, William W.	Shell, eccentric, explosive	Mar.	2, 1858	XIX.
19776	Hubbell, William W. and Richard	Car-wheels, railroad	Mar.	30, 1858	X.
19852	Hudgin, W.	Pipes, coupling	April	6, 1858	II.
20065	Hudson, Thomas S.	Pen cleaner and holder	April	27, 1858	XVIII.
22429	Hudson, Thomas S.	Inkstand	Dec.	28, 1858	XVIII.
	Hudson, W. S. (See Allen & Hudson.)				
21679	Hufnagel, Bernhard	Photographic baths	Oct.	5, 1858	XVIII.
20432	Huggins, J. S., and R. Chapman	Planter, cotton-seed	June	1, 1858	I.
	Hughes, J. (See Morse & Hughes.)				
	Hughes, Richard. (See Stuber & Hughes.)				
21423	Hulbert, Samuel	Plough	Sept.	7, 1858	I.
20077	Hull, Stephen	Harvester	Nov.	16, 1858	I.
20067	Humberger, A.	Harvester, corn	April	27, 1858	I.
22430	Humphrey, John	Tool for slotting clothes pins	Dec.	28, 1858	XIV.
	Humphrey S. Dwight, et al. (See Creemer, John B., assignor.)				
19638	Humphries, Joseph	Anchor and life-preserver, combined floating	March	16, 1858	VII.
19250	Hunt, Augustus	Hoisting ice, apparatus for	Feb.	2, 1858	XII.
20881	Hunt, Caleb S.	Pulleys, machine	July	13, 1858	XIII.
20490	Hunt, Franklin B.	Grinding and cutting, machine for	June	8, 1858	XIII.
	Hunt, German H., et al. (See Pool, R., assignor.)				
	Hunt, Homer P. (See Kendall & Hunt, assignors.)				
19026	Hunt, M. J., and J. H. Haines	Planter, seed	Jan.	5, 1858	I.
22180	Hunt, R. W., and M. Kennedy	Seeding-machine	Dec.	1, 1858	I.
	Hunter, Keller, & Co. (See Wrangle, Moses, assignor.)				
20714	Hunter, W. A.	Printers, type-case for	June	29, 1858	XVIII.
21200	Huntington, William C.	Sawing-machine, reciprocating, for sawing plank	Aug.	17, 1858	XIV.
22400	Huntoon, Reuben K., assignor to himself and Jacob B. Rand.	Turning tapering twists on wood, machine for	Dec.	21, 1858	XIV.
19853	Hupp, A.	Stave machines, method of holding and feeding the bolt in.	April	6, 1858	XIV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Hurd, F. P., administrator of J. Hurd, deceased, assignee by intermediate assignment of said J. Hurd.	Sugar, cleansing	-----	Extension.
22292	Hurd, Francis P., assignee by intermediate assignment of Joseph Hurd.	Sugar, cleansing	Sept. 30, 1858	Reissue.
22431	Hurlburt, Charles R.	Car springs	Dec. 14, 1858	X.
22368	Hurlburt, E., <i>et al.</i> (See White, LeRoy, assignor.)	Propelling and steering apparatus	Dec. 28, 1858	VII.
	Huse, Samuel, and Samuel, jr.	Harvesters, method of gathering grain upon, and discharging it from the platform of.	Dec. 21, 1858	I.
	Hussey, Obed	Block, spring tackle	Dec. 28, 1858	VII.
22432	Hussey, Obed	Seeding-machine	Jan. 19, 1858	I.
19144	Huston, John	Hemp brake	Oct. 5, 1858	III.
21680	Hutchinson, William C.	Paint compounds	May 11, 1858	IV.
20205	Huyett, William G.	Vault covers, illuminating glasses for	July 27, 1858	IX.
20050	Hyatt, Thaddeus, assignor to George R. Jackson & Co.	Composition for coating telegraph wires	March 30, 1858	IV.
19778	Hyde, J. Burrows	Charcoal, converting peat into	June 29, 1858	IV.
20758	Hyde, J. Burrows, assignor to Anna M. Hyde	Hydrant	Jan. 5, 1858	XI.
19029	Hyde, John	Wrench, screw	Nov. 23, 1858	II.
22122	Hyde, Joseph	Driver, post and pile	June 15, 1858	IX.
20563	Hyde, O.	Picket, screw	June 29, 1858	XXII.
20715	Hyde, O.	Plotting instrument	Jan. 12, 1858	VIII.
19091	Iliff, Charles R.	Warming apparatus, steam	April 27, 1858	VI.
20068	Ingalls, E. T., and James R. Nichols	Cars, railroad, and running gear for	Aug. 24, 1858	X.
21259	Ingersoll, James	Bales, cotton, securing metallic bands on	May 18, 1858	XII.
20311	Ingersoll, P. C., assignor to himself and H. F. Dougherty.	Shafts without using a crank, rotary	July 6, 1858	XIII.
20800	Ingersoll, S.	PresSES	Mar. 30, 1858	XII.
19811	Ingersoll, S., assignor to himself, S. B. Turner, and George W. Kimball.	Furnaces, air heating	Mar. 30, 1858	V.
19781	Ingersoll, T. Dwight	Pots, coffee and tea	Mar. 30, 1858	XVII.
19780	Ingraham, James M.			

19030	Ingram, James	Conduits, grab for cleaning	Jan. 5, 1858	IX.
19368	Ingram, James	Ranges, water back for	Feb. 16, 1858	V.
20206	Irwin, John	Bedsteads, sofa	May 11, 1858	XVII.
	Iverson, Hans. (See Loudon & Iverson )			
21341	Ives, Ira A.	Studs and lock-joint fastener for	Aug. 31, 1858	XVIII.
993	Ives, James	Carriage-hub sand-bands	Mar. 9, 1858	Design.
21300	Jackman, D. K. (See Cummings, G. W., assignor.)			
	Jackman, J., jr., assignor to himself and E. H. Ashcroft.	Valves, cut-off, of steam-engines	Aug. 24, 1858	VI.
21963	Jackson, Abram	Threshing-machine	Nov. 2, 1858	I.
	Jackson, Francis, et al. (See Comfort, Samuel, jr., assignor.)			
520	Jackson, George R.	Vault-covers	Jan. 19, 1858	Reissue.
19639	Jackson, George R.	Vault-covers, attaching the glasses of	Mar. 16, 1858	IX.
	Jackson, George R., & Co. (See Hyatt, Thaddeus, assignor.)			
997	Jackson, J. L. (No. 1)	Screens for steam-pipes, &c.	April 13, 1858	Design.
998	Jackson, James L. (No. 2)	Screens for steam-pipes, &c.	April 13, 1858	Design.
1045	Jackson, James L.	Screens	Aug. 31, 1858	Design.
21342	Jackson, Joel C.	Jack, lifting	Aug. 31, 1858	XII.
	Jackson, P. H. (See Leonard & Jackson.)			
21134	Jackson, Peter H.	Ship's windlass	Aug. 10, 1858	VII.
21135	Jackson, Peter H.	Cable-stopper	Aug. 10, 1858	VII.
	Jackson, Peter H. (See Grosz & Jackson.)			
21834	Jackson, Peter H.	Pavements, metallic side, construction of	Oct. 19, 1858	IX.
21234	Jackson, T. D., assignor to Joseph W. Bartlett.	Sewing-machine	Aug. 17, 1858	III.
21299	Jackson, Timothy D., assignor to Joseph W. Bartlett.	Sewing-machine	Aug. 24, 1858	III.
197	Jackson, W. R.	Car-brake, automatic railroad	Mar. 30, 1858	Add'l imp't.
19854	Jacobs, J. Nelson	Files, machine for cutting	April 6, 1858	II.
21003	Jacobs, Zalmon L.	Boilers, steam, apparatus for regulating the supply of water to.	July 27, 1858	VI.
	Jacobus, R. D.	Governor, steam	April 20, 1858	VI.
19995	Jacot, C. E.	Watch, stop	June 8, 1858	VIII.
22123	Jadwin, Orlando H.	Inkstand	Nov. 23, 1858	XVIII.
22181	Jamaes, David E.	Printing-press	Dec. 1, 1858	XVIII.
20433	James, Thomas	Brick, manufacture of	June 1, 1858	XV.
19640	Jamieson, T. S.	Valves in steam-engines, mode of operating	Mar. 16, 1858	VI.
19929	Jaminet, A.	Filterers, water	April 13, 1858	XI.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20434	Jancovins, R.----- James, Henry C. (See White, O., assignor.)	Back-band strap, self-adjusting and vibrating-----	June 1, 1858-----	XVI.
22252	Janes, Reuben S.----- Jastram, G. B., <i>et al.</i> (See Shaw & Carpenter, jr., assignors.)	Saws, circular, guard for-----	Dec. 7, 1858-----	XIV.
22369	Jeffery, Edwin A.-----	Hoop-lock-----	Dec. 21, 1858-----	XIV.
21500	Jenkins, J.-----	Shoes, cemented-sole, heating apparatus for the manufacture of.	Sept. 14, 1858-----	XVI.
21424	Jenkins, Jacob-----	Boots and shoes, apparatus for applying soles to--	Sept. 7, 1858-----	XVI.
21564	Jenkins, Jacob-----	Boots and shoes, apparatus for applying soles to--	Sept. 21, 1858-----	XVI.
22433	Jenkins, John K.----- Jenkins, R., and W. A. Stephens. (See Stephens & Jenkins.)	Fruits, preserving-----	Dec. 28, 1858-----	XVII.
21964	Jenks, Lemuel P., and Francis Draper-----	Filtering-cock-----	Nov. 2, 1858-----	XI.
21425	Jennet, Joseph-----	Time-keepers, escapement of-----	Sept. 7, 1858-----	VIII.
19641	Jennings, Lyman-----	Knives while grinding, holder for planing-----	Mar. 16, 1858-----	II.
22024	Jensen, N.-----	Alarm, burglars'-----	Nov. 9, 1858-----	XXII.
22293	Jensen, N.-----	Bandages-----	Dec. 14, 1858-----	XX.
21607	Jerome, George F. and Moses-----	Mowing-machine-----	Sept. 28, 1858-----	I.
21681	Jerome, George F. and Moses-----	Harvester-----	Oct. 5, 1858-----	I.
1000	Jerome, Samuel B.-----	Clock-case fronts-----	May 4, 1858-----	Design.
20564	Jewell, M.-----	Belting, round, manufacture of-----	June 15, 1858-----	XIII.
22078	Jillson, C.-----	Traps, animal-----	Nov. 16, 1858-----	XXII.
22682	Jobin, Joseph-----	Valves of steam-engines-----	Nov. 5, 1858-----	VI.
20435	Johns, W. B.----- Johnson & Morey. (See Morey & Johnson, assignors)	Bedstead-----	June 1, 1858-----	XVII.
20686	Johnson, Albert F., assignor to himself and Francis F. Emery.	Sewing-machine-----	June 22, 1858-----	III.
20069	Johnson, Asa-----	Hose-supporter-----	April 27, 1858-----	XXI.

22124	Johnson, Benjamin	Tournures	Nov.	23, 1858	XXI.
	Johnson, C. D., et al. (See Mix, E. M. and J. E., assignors.)				
21501	Johnson, Daniel	Churn	Sept.	14, 1858	I.
20565	Johnson, H. G.	Tanning leather	June	15, 1858	XVI.
21835	Johnson, Isaac G.	Mercury, bottles for containing	Oct.	19, 1858	IV.
	Johnson, J., and H. E. Marsh. (See Delaney, E. J., assignor.)				
20350	Johnson, James B.	Wind-wheels	May	25, 1858	XI.
21260	Johnson, John B.	Fence, portable field	Aug.	24, 1858	IX.
21683	Johnson, Josee	Dough for bread, apparatus for raising	Oct.	5, 1858	XVII.
21758	Johnson, Josee	Pen-holder	Oct.	12, 1858	XVIII.
21759	Johnson, Josee	Book-marker, index or	Oct.	12, 1858	XVIII.
21881	Johnson, Josee	Pen, fountain	Oct.	26, 1858	XVIII.
21966	Johnson, Josee	Pins, shield	Nov.	2, 1858	XXI.
21927	Johnson, Josee, assignor to Joseph Ditto & Co.	Roofing, compositions for	Oct.	26, 1858	IX.
22253	Johnson, Josee, and F. Bailey	Lamps, burners for	Dec.	7, 1858	V.
21836	Johnson, Josee, and R. Lapham	Boilers, steam, water-gauge for	Oct.	19, 1858	VI.
21136	Johnson, R.	Window-sash, hanging	Aug.	10, 1858	IX.
	Johnson, R. R. (See Rand & Johnson.)				
19930	Johnson, S.	Gold, machine for excavating and washing	April	13, 1858	II.
20566	Johnson, W.	Shafting, adjustable hanger for	June	15, 1858	XIII.
20716	Johnson, W.	Locks, band and other	June	29, 1858	II.
21756	Johnson, William	Boots and shoes, soles for, tool for chamfering	Oct.	12, 1858	XVI.
	Johnson, William F. (See Flint & Rogers, assignors.)				
19251	Johnston, James J.	Mill, grain	Feb.	2, 1858	XIII.
20158	Johnston, James J.	Planters, seed	May	4, 1858	I.
19565	Johnston, William K.	Excavating post-holes, machine for	Mar.	9, 1858	IX.
19996	Joline, B.	Vessels, navigable, centre-boards of	April	20, 1858	VII.
21684	Jollie, Samuel C.	Ballot-box	Oct.	5, 1858	XXII.
21107	Jones, Amos, assignor to himself and Solon M. Davis.	Jack, mechanical	Aug.	3, 1858	XII.
	Jones, Edward, et al. (See Fetter, George, assignor.)				
20159	Jones, Edward F.	Lamp	May	4, 1858	V.
22079	Jones, J. H.	Horse-power, draught	Nov.	16, 1858	XIII.
196	Jones, J. M.	Carriage-bodies, hanging	Mar.	30, 1858	Add'l imp't.
21882	Jones, John	Candles, machine for making	Oct.	26, 1858	IV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19566	Jones, John H., and Newton W. Smith.	Fence, field.	Mar. 9, 1858.	IX.
21167	Jones, Joseph, assignor to Edmund and Joseph Jones, jr.	Plough.	Aug. 10, 1858.	I.
21965	Jones, R. V.	Sausage-machine.	Nov. 2, 1858.	XVII.
20643	Jones, Samuel F.	Seeding-machine.	June 22, 1858.	III.
20070	Jones, Samuel R.	Cars, railroad, elliptic cushion for.	April 27, 1858.	X.
	Jones, Samuel R.	Cars, railroad, elliptic cushion for.	Oct. 26, 1858.	Reissue.
20351	Jones, W. (See Tyler, Jones, & Lathrop )			
	Jones, W. D.	Furnaces, &c., apparatus for separating the combustible from the incombustible gases or products of combustion in.	May 25, 1858.	V.
20529	Jordan, A. C. (See Arnall, William M., assignor.)			
	Jordan, E., assignor to Benedict & Burnham Manufacturing Company.	Tubing, soldered, machine for finishing.	June 8, 1858.	II.
19782	Jordan, John A.	Churn.	Mar. 30, 1858.	I.
20277	Jordan, Joseph, jr , and Thomas Eustice.	Paper pulp, machine for grinding and sizing.	May 18, 1858.	III.
21261	Jordan, W. A.	Washing-machines.	Aug. 24, 1858.	XVII.
21967	Joseph, P. P.	Car-seats.	Nov. 2, 1858.	X.
20160	Joslyn, B. F.	Fire-arm, revolving.	May 4, 1858.	XIX.
19699	Joyce, J. O.	Pump.	Mar. 23, 1858.	XI.
21968	Judd, E. M.	Fastener, sash.	Nov. 2, 1858.	II.
21201	Judson, A.	Boats, canal, construction of.	Ang. 17, 1858.	VII.
19299	Julier, Edward.	Washing-machine.	Feb. 9, 1858.	XVII.
21565	June, Henry R.	Washing-machine.	Sept. 21, 1858.	XVII.
20717	Kahnweiler, D.	Pipe-coupling.	June 29, 1858.	II.
21969	Kaller, Hermann.	Seeding-machine.	Nov. 2, 1858.	I.
21608	Kane, Charles.	Range and heating apparatus, combined cooking.	Sept. 28, 1858.	V.
19855	Kaufman, E.	Pitcher, ice.	April 6, 1858.	XVII.
21343	Kaufmann, H. G.	Harvesting-machine.	Aug. 31, 1858.	I.
21761	Keane, John.	Malt liquors, apparatus for preserving.	Oct. 12, 1858.	IV.
21837	Kearney, William.	Jack, hoisting.	Oct. 19, 1858.	XII.
20644	Keech, Joseph.	Wash-boards.	June 22, 1858.	XVII.

20492	Keeler, J. F.	Scales, platform	June 8, 1858	XII.
22182	Keen & Ladd. (See Watt & Burgess.)	Pump	Dec. 1, 1858	XI.
19507	Keeports, A. L., and George Palmer	Hominy-mortar	Mar. 2, 1858	XVII.
21273	Keezer, John	Seeding-machine	Aug. 24, 1858	I.
	Keiper, D. B., and A. C. Fox			
	Keller, Hunter, & Co. (See Wrangle, Moses, assignor.)			
19506	Keller, Jacob	Paper bags, machine for making	Mar. 2, 1858	XVIII.
20801	Kelley, Austin	Skirt-hoop	July 6, 1858	XXI.
20207	Kelley, L. W.	Cultivator	May 11, 1858	I.
20161	Kelly, J. C., and A. Frost	Mill, smut	May 4, 1858	XIII.
19061	Kelly, James, assignor to himself and John Sherry	Scales, platform	Jan. 5, 1858	XII.
19092	Kellner, Louis	Velocipedes	Jan. 12, 1858	X.
19283	Kellogg, Nathan, <i>et al.</i> (See Knight, Eleazor B.)			
22145	Kelsea, H., assignor to himself and Henry Dunklee, assignor to D. B. & J. C. Fuller.	Sewing silk, manufacturing	Feb. 2, 1858	III.
	Kendall, Amos E., and Peter K. Keyes, assignors to themselves and C. W. Elton.	Chair, reclining	Nov. 23, 1858	XVII.
21883	Kendall, H.	Press, cheese	Oct. 26, 1858	XII.
20493	Kendall, H. L.	Plane, bench	June 8, 1858	XIV.
21641	Kendall, H. L., and Homer P. Hunt, assignor to the New England Screw Company.	Screws, wood, cutting threads of	Sept. 28, 1858	II.
22082	Kendrick, R., and A. W. Akerson.	Telegraphic instrument	Nov. 16, 1858	VIII.
	Kennard and Bigelow Brothers. (See Watson, John F., assignor.)			
19031	Kennard, Seneca C.	Measuring the superficies of boards, machine for	Jan. 5, 1858	VIII.
19700	Kennedy, John W.	Carpenters' brackets, &c., holding bolt for	Mar. 23, 1858	XIV.
21538	Kennedy, John W., and John T. Plummer, assignor to themselves and John Batchelder.	Wool, machinery for drawing and twisting	Sept. 14, 1858	III.
	Kennedy, M. (See Hunt & Kennedy.)			
21502	Kent, Joseph. (See Brown, J. S., assignor.)	Car-coupling, railroad	Sept. 14, 1858	X.
21344	Kenyon, Charles P.	Lamp	Aug. 31, 1858	V.
1049	Kenyon, James P. and Ellen	Bottles, nursery	Sept. 14, 1858	Design.
19701	Kern, Francis	Dyeing yarn particolored	Mar. 23, 1858	IV.
19997	Kerr, David B.	Hammer, operating blacksmith's	April 20, 1858	II.
20802	Kerr, J. W.	Boiler, steam	July 6, 1858	VI.
20718	Ketcham, Alonzo R.	Daguerreotype plates, machine for cleaning	June 29, 1858	XVIII.
19300	Ketcham, Charles	Saws, reciprocating, method of straining	Feb. 9, 1858	XIV.
	Ketcham, G. P., jr			



No.	Name of patentee.	Invention or discovery.	Date.	Class.
20719	Ketchum, W. F.	Harvester	June 29, 1858	I.
20494	Kettler, F.	Stumps, machine for cutting out.	June 8, 1858	IX.
19932	Keyes, Peter K. (See Kendall & Keyes.)	Bonnet frames	April 13, 1858	XXI.
19567	Kidd, Whitten E.	Vehicles, attaching the springs of	Mar. 9, 1858	X.
19931	Kidder, F. L., and A. E. Aeby	Bee-hive	April 13, 1858	I.
21075	Kidder, K. P.	Stove, gas.	Aug. 3, 1858	V.
20162	Kidder, M. W.	Seeding-machine	May 4, 1858	I.
21884	Kierstead, James F.	Chimney-caps	Oct. 26, 1858	V.
19370	Kihlholz, Bernhard	Knitting-machine	Feb. 16, 1858	III.
21566	Kilbourn, Joseph K. and Edward E.	Knitting-machine, needles for	Sept. 21, 1858	III.
21762	Kilbourn, Joseph K. and Edward E.	Knitting-machine	Oct. 12, 1858	III.
19702	Killam, Joseph W.	Planing-machines, method of clamping polygonal pieces in.	Mar. 23, 1858	XIV.
20882	Killbrith, F.	Shoemakers' edge-planes	July 13, 1858	XVI.
21137	Kimball, E. W.	Planter, seed.	Aug. 10, 1858	I.
20764	Kimball, G. W. (See Ingersoll, S., assignor.) King, George C. (See Lewis & King, assignors.) King, John. (See Wood & King.) King, John, assignor to himself and W. Higbie, H. Link, and G. R. Comstock.	Frame, quilting.	June 29, 1858	XVII.
20495	King, Samuel U.	Brace, device for attaching bits to the	June 8, 1858	XIV.
20352	King, T. E. and A. and E.	Post, iron gate and fence	May 25, 1858	IX.
21503	King, T. E., Alexander, and Edwin	Dove-tails, machine for cutting	Sept. 14, 1858	XIV.
21885	Kinkead, A.	Tables, dining and other.	Oct. 26, 1858	XVII.
20496	Kinney, G. P., et al. (See Safford, M., assignor.)	Fire-arm, revolving	June 8, 1858	XIX.
20436	Kinsey, M.	Daguerreotype and other cases, hinge for	June 1, 1858	XVIII.
19856	Kinsley, E. G., and S. A. W. Parker, jr	Tobacco, machine for crimping	April 6, 1858	XXII.
21504	Kinsley, R.	Lock, door.	Sept. 14, 1858	II.
19369	Kinzer, Jacob	Furniture, casters for	Feb. 16, 1858	XVII.
19301	Kirk, Robert H.	Window sash, removable	Feb. 9, 1858	IX.

20946	Kirk, Jacob W	Drill, seed	July	20, 1858	I.
	Kirkpatrick, John. (See Nutall & Kirkpatrick.)				
21685	Kitson, Richard	Card-clothing	Oct.	5, 1858	III.
21168	Klemm, Theodor, assignor to Edward Moss	Tanning hides	Aug.	10, 1858	XVI.
22125	Kline, Calvin	Attraction of the needle, local method of neutralizing.	Nov.	23, 1858	VIII.
19280	Klinger, John W., assignor to Ignatius Sturn	Pins, diaper or shawl	Feb.	2, 1858	XXI.
194	Klingle, P	Plough, steam	Mar.	9, 1858	Add'l imp't.
19427	Klingle, Pierce	Plough, steam	Feb.	23, 1858	I.
19575	Knab, David C	Gas, manufacture of	Mar.	9, 1858	IV.
19426	Knapp, Franklin L	Snow plough	Feb.	23, 1858	IX.
570	Kneass, Strickland. (See Stiles & Kneass.)				
21004	Knecht, Rudolph	Ships, &c., method of ventilating	July	6, 1858	Reissue.
21539	Kneeland, J. C	Paper, machinery for piling	July	27, 1858	III.
	Knight, Eleazer, assignor to himself and Nathan Kellogg.	Stone-holding machine.	Sept.	14, 1858	XV.
21505	Knight, John Iris	Bullet-machine	Sept.	14, 1858	XIX.
19812	Knight, Judson, assignor to S. Boyd, assignor to R. W. Booth.	Hoes, manufacture of	Mar.	30, 1858	I.
21886	Knight, L. L., and D. H. Rice	Spoke-machine	Oct.	26, 1858	XIV.
20353	Knight, Silas P	Production of electrotype plates	May	25, 1858	IV.
21567	Knowles, Daniel R	Metal bars, machine for cutting	Sept.	21, 1858	II.
629	Knowles, Hazard	Saw-mill	Dec.	1, 1858	XIV.
530	Knowles, Lucius J	Boilers, steam, safety indicators for	Feb.	23, 1858	Reissue.
995	Koch, John P	Bedsteads, iron legs and posts of	Mar.	23, 1858	Design.
20276	Korff, G. H	Presses for zincographic printing	May	18, 1858	XVIII.
20921	Kraatz, David K., assignor to himself and Isaac S. Roland.	Water-wheel	July	13, 1858	XI.
21138	Kraemer, Frederick	Bathing apparatus	Aug.	10, 1858	XX.
21837	Kraft, G. W	Gasometer	Oct.	26, 1858	IV.
20472	Krausch, T	Railroad chairs	June	1, 1858	IX.
21076	Krause, F. C	Gas-burner	Aug.	3, 1858	V.
20947	Krause, H	Pressing grapes, machine for	July	20, 1858	XII.
21005	Krauser, John L	Nails, manufacturing	July	27, 1858	II.
20312	Krauser, John L., assignor to John L. Krauser and James Harper.	Nail-machine	May	18, 1858	II.
19371	Kuehnhold, F. B., and D. B. Sturges	Harness-trees	Feb.	16, 1858	XVI.
553	Kuhns, B., and M. J. Haines	Planter, seed	May	11, 1858	Reissue.
	Kuhns, Benjamin. (See Ball, George S., assignor)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19998	Kurth, Henry	Umbrellas	April 20, 1858	XXI.
21888	Kutts, John	Brick-machine	Oct. 26, 1858	XV.
19642	Laage, C. J., <i>et al.</i> (See Tyler, S. G., assignor.) Lacassagne, Joseph, and Rudolph Thiers	Electric currents, apparatus for regulating and measuring the intensity of.	Mar. 15, 1858	VIII.
22254	Lachat, Auguste	Watch-cases	Dec. 7, 1858	VIII.
21051	Lackey, L., assignor to himself and E. Townsend.	Shoes, machine for pegging	July 27, 1858	XVI.
22183	Ladd & Keen. (See Watt & Burgess, assignors.)	Planter, corn	Dec. 1, 1858	I.
19933	Ladd, D.	Valve, throttle	April 13, 1858	VI.
19934	La France, T. S.	Trunk handles, mode of constructing	April 13, 1858	XV.
	Lagowitz, S.			
	Lake, D. J. (See Granger, W. J., assignor.)			
	Lamb, Isaac. (See Mendenhall, Stephen C., assignor.)			
22294	Lamb, Thomas. (See Spencer & Lamb.)	Table, folding	Dec. 14, 1858	XVII.
	Lammrich, Charles			
20183	Lancaster, Joseph. (See Hartell & Lancaster.)	Chains, sheet-metal	May 4, 1858	XVIII.
20720	Lancelott, J., assignor to Sackett, Davis, & Co.	Skirt-hoops	June 29, 1858	XXI.
	Landenberger, M.			
	Landenberger, Martin. (See Vickerstoff, Joseph, assignor.)			
19935	Landis, John K.	Straw-cutter	April 13, 1858	I.
20645	Landon, D.	Harvester, corn	June 22, 1858	I.
20948	Lane, C. (See Owens, Lane, & Dyer.)	Casting hinges	July 20, 1858	II.
20497	Lane, Conrad M.	Carriage-springs	June 8, 1858	X.
19062	Lane, D. M.	Quadrants, &c., artificial horizon for, method of determining.	Jan. 5, 1858	VIII.
	Lane, James C., assignor to himself and J. H. Barnes.			
	Lane, Philander P. (See Smith & Lane.)			
19372	Langdon, J. W.	Wagons, extension-reach for	Feb. 16, 1858	X.
21889	Lanier, John M.	Bridles to prevent horses from kicking or running away.	Oct. 26, 1858	XVI.

20723	Lankan, Daul, <i>et al.</i> (See Henn, J., assignor.)	Bedstead. ....	June 29, 1858. ....	XVII.
21568	Lanphear, Norman	Brush cylinders for spreaders, cotton-gins, &c. ....	Sept. 21, 1858. ....	III.
21139	Lanpher, A. M. ....	Wheat, cleaning-machine for. ....	Aug. 10, 1858. ....	XIII.
20392	Lantz, J., and J. Russell. ....	Car-couplings, railroad. ....	May. 25, 1858. ....	X.
	Lanzweert, L. (See Tucker & Lanzweert.)			
	Lapham, A., and D. H. Burns, assignors to themselves and C. A. Durgin.			
	Lapham, R. (See Johnson & Lapham.)			
21569	Larowe, A. ....	Wagon-brake, self-acting. ....	Sept. 21, 1858. ....	X.
22295	Larowe, A. ....	Sled-brake. ....	Dec. 14, 1858. ....	X.
21970	Lashbrooks, James. ....	Straw-cutter. ....	Nov. 2, 1858. ....	I.
606	Lashier, Daniel. ....	Steam-pistons, metallic packing for. ....	Sept. 28, 1858. ....	Reissue.
20567	Lathrop, B. (See Tyler, Jones, & Lathrop.)			
22434	Laubach, W. H. ....	Gas, retort for generating. ....	June 15, 1858. ....	IV.
19033	Laubach, William H. ....	Gas-retort. ....	Dec. 28, 1858. ....	IV.
	Law, Robert. ....	Shingle-machine. ....	Jan. 5, 1858. ....	XIV.
	Lawrence & Abbott. (See Smith & Brown, assignors)			
22025	Lawrence, D. M. ....	Cars, railroad, sleeping-berths for. ....	Nov. 9, 1858. ....	X.
19609	Lawrence, H., assignor to himself and J. M. Connel.	Washing-machine. ....	Mar. 9, 1858. ....	XVII.
	Lawrence, William. (See Wood & King, assignors.)			
	Lazell, Perkins, & Co., <i>et al.</i> (See Ferguson, James, assignor.)			
21262	Leach, Edwin. ....	Music-stool. ....	Aug. 24, 1858. ....	XVIII.
19857	Leaman, Henry A. ....	Piano-forte action. ....	April 6, 1858. ....	XVIII.
20568	Leas, J. E. (See Hoge, Solomon G., assignor.)			
20208	Leavenworth, L. ....	Corn-husker. ....	June 15, 1858. ....	I.
21263	Leavitt, C. ....	Mill, corn. ....	May 11, 1858. ....	XIII.
21345	Leavitt, Rufus. ....	Bed-bottom. ....	Aug. 24, 1858. ....	XVII.
	Leavitt, W. D. ....	Sawing-machines, circular, method of attaching the spreader to saws of.	Aug. 31, 1858. ....	XIV.
21838	Leavitt, William D. ....	Sawing, re-, machine. ....	Oct. 19, 1858. ....	XIV.
20072	Lee, Francis D. ....	Life and treasure buoy. ....	April 27, 1858. ....	VII.
20280	Lee, R. K. ....	Keys, safety-drop for. ....	May 18, 1858. ....	II.
20073	Lee, R. S. (See Barrett, Lee, & Waters.)			
21763	Lee, Thomas. ....	Fire-arm, breech-loading. ....	April 27, 1858. ....	XIX.
22126	Lee, Thomas M. ....	Cultivator. ....	Oct. 12, 1858. ....	I.
	Lefebvre, L. ....	Sugar-juices, furnace for evaporating. ....	Nov. 23, 1858. ....	IV.



Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
609	Lefler, J. George	Carriages, wear-iron for	Oct. 5, 1858	Reissue.
19034	Lefler, Silas F.	Churn	Jan. 5, 1858	I.
20569	Legare, J. M.	Composition ivory frame	June 15, 1858	IV.
21570	Legros, Charles	Life-boats, expansable floats for	Sept. 21, 1858	VII.
21506	Leguay, Henry	Clay, machine for working	Sept. 14, 1858	XV.
531	Leibrandt, McDowell, & Co. (See Smith & Brown, assignors.)			
19643	Leicht, Conrad	Billiard-cues	Feb. 23, 1858	Reissue.
21006	Leidy, John	Grain cradle	Mar. 16, 1858	I.
22296	Lennon, S. N.	Railroad switches, signal lantern for	July 27, 1858	IX.
575	Lenzmann, Charles L.	Hose, engine	Dec. 14, 1858	XI.
991	Leonard, A.	Wagons, casting skeins for	Aug. 3, 1858	Reissue.
	Leonard, Allen, assignor to Rogers Manufacturing Company.	Pots, tea and coffee	Feb. 23, 1858	Design.
19093	Leonard, Burton W.	Mills, grinding	Jan. 12, 1858	XIII.
20721	Leonard, E. P., and P. H. Jackson	Vaults, &c., illuminating covers for	June 29, 1858	IX.
21890	Leslie, J. Y.	Lampwick	Oct. 26, 1858	V.
21202	Lester, E. A.	Car wheels, railroad, method of making cast iron.	Aug. 10, 1858	Extension.
	Lester, J. N.	Smut-machine	Aug. 17, 1858	XII.
19858	Levengood & Deppen. (See Deppen & Levengood.)	Dental plates, atmospheric pressure	April 6, 1858	XX.
20354	Levett, Morris	Marine alarm and fog signal	May 25, 1858	VII.
614	Lewenburg, L.	Pumps, ventilating attachment to be applied to	Oct. 26, 1858	Reissue.
	Lewis, C. N., and G. C. King, assignors to George C. King.			
20163	Lewis, Charles N.	Corn-husker	May 4, 1858	I.
20071	Lewis, E. E.	Fence, field	April 27, 1858	IX.
21007	Lewis, E. E., W. D. Dunning, and C. Wheat.	Railroads, compound rails for	July 27, 1858	IX.
21609	Lewis, John	Ships, balance sail rig for	Sept. 28, 1858	VII.
19508	Lewis, Reuben L.	Boot-trees	Mar. 2, 1858	XVI.
22370	Lewis, Thomas	Bottle-stopper	Dec. 21, 1858	XXII.
22080	Lewis, Thomas	Breast-pipes	Nov. 16, 1858	XX.
22371	Lewis, Tristram S.	Bench, folding	Dec. 21, 1858	XXII.

22435	Lewis, Tristram S.	Clothes-horse	Dec.	8, 1858	XVII.
20646	Lewis, W. W.	Horse-shoe machine	June	22, 1858	II.
21140	Lewis, William	Drills, rock	Aug.	10, 1858	IX
10094	Lewis, William J.	Chain-making machine	Jan.	12, 1858	II.
19252	Lewis, William and W. H.	Photographic cameras, frames for	Feb.	2, 1858	XVIII.
20075	Liebrich, Conrad	Toy	April	27, 1858	XXII.
22081	Liernur, Charles T.	Registering speed of railroad trains, method of	Nov.	16, 1858	VIII.
21426	Lighthizer, V. B. (See Campbell, Lighthizer, & Shannon.)	Railroad-indicator	Sept.	7, 1858	IX.
21427	Lillibridge, Gardner R.	Safe, iron	Sept.	7, 1858	II.
19469	Lillie, Lewis	Locomotives in engine-houses, arrangement for carrying off smoke from.	Feb.	23, 1858	VI.
21686	Lilly, John O. D., James L. Vanclain, and James W. Lilly.	Boilers, steam, water-alarm for	Oct.	5, 1858	VI.
20570	Lincoln, Levi E.	Doors, double fastening for	June	15, 1858	II.
19253	Lindner, G. H.	Corn-sheller	Feb.	2, 1858	I.
19569	Lindner, Joseph R.	Glass, &c., machine for polishing	Mar.	9, 1858	XV.
21008	Lindsay, Alexander	Paper-making machines	July	27, 1858	III.
	Lindsay, T. and W. Geddes				
	Lindsey, Moore, & Clark. (See Moore, Clark, & Lindsey.)				
589	Lindsey, Hosea	Pump	Aug.	24, 1858	Reissue.
209	Link, H. (See King, John, assignor.)				
19783	Link, Henry	Propeller	Nov.	16, 1858	Add'l imp't.
20074	Lipman, Hymen L.	Lead-pencil and eraser, combination of	Mar.	30, 1858	XVIII.
22127	Lippincott, O.	Planter, corn	April	27, 1858	I.
20850	Lippmann, Adolphus	Refrigerator	Nov.	23, 1858	XVII.
	Lipps, J. P., assignor to George D. Baldwin	Lock	July	6, 1858	II.
21891	Litchfield, H. T. (See Young, Moses M., assignor.)				
20949	Lithgow, David	Iron, flat	Oct.	26, 1858	XVII.
21264	Little, M.	Potatoes, machine for digging	July	20, 1858	I.
19302	Little, Samuel H.	Hemp, machine for breaking	Aug.	24, 1858	III.
	Little, Thomas E.	Mills, scrapers for grinding	Feb.	9, 1858	XIII.
21507	Littlefield, Dennis G. (See Easterly, Jas., ass'r.)	Hoops, machine for notching and trimming	Sept.	14, 1858	XIV.
21508	Littlefield, Sanford	Hoops, wooden, machine for cutting and finishing the locks of	Sept.	14, 1858	XIV.
20680	Littlejohn, Hiram	Gas metres, dry valves for	June	22, 1858	IV.
	Lloyd, C. C., assignor to W. Hopper and R. H. Gratz.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22271	Lloyd, Jane H., administratrix of Richard L. Lloyd, deceased, assignor to George T. Parry.	Boilers, steam, device for preventing explosions in.	Dec. 7, 1858	VI.
19705	Loane, Henry E.	Railroad car coupling	March 23, 1858	IX.
21892	Locke, Richard B.	Paddle-wheel	Oct. 26, 1858	VII.
20278	Locker. (See Hersh, <i>et al.</i> )	Hame-tug fastener	May 18, 1858	XVI.
19326	Lockwood, E. D.	Corn-husker	Feb. 9, 1858	I.
19470	Lombard, Daniel, assignor to himself and George F. Richardson.	Brick-machine	Feb. 23, 1858	XV.
21428	Long, Israel	Cultivator	Sept. 7, 1858	I.
19703	Long, J. M., P. Black, and R. Allstatter	Harvester	March 23, 1858	I.
19704	Long, Stephen H.	Railways, superstructure of	March 23, 1858	IX.
21203	Long, Stephen H.	Bridge	Aug. 17, 1858	IX.
21204	Longman, Samuel	Amalgamating gold and silver	Aug. 17, 1858	II.
21205	Loomis, W. H., and John Hewitt	Drill, rock	Aug. 17, 1858	IX.
21429	Lord, James	Printing address on newspapers, &c, machine for.	Sept. 7, 1858	XVIII.
21346	Lord, John P.	Lock	Aug. 31, 1858	II.
21347	Lorenz, W., and J. D. Steele. (See Steele & Lorenz.)	Hoe	Aug. 31, 1858	Disclaimer.
21764	Loth, Moritz. (See Reuthe, Frederick, assignor.)	Hinges for window-blinds	Oct. 12, 1858	II.
20076	Lothrop, Horace A.	Stirrups	April 27, 1858	XVI.
	Loudon, John, and Hans Iverson	Spike-machine		II.
	Loudon, John, and Hans Iverson			
	Loughran, Michael			
	Lounsbury, Bissell, & Co. (See Butler, Thomas B., assignor.)			
21141	Lounsbury, Charles, jr.	Apples, machine for coring and quartering	Aug. 10, 1858	XVII.
20279	Love, B. F., and J. H. Frazee	Horse-power	May 18, 1858	XIII.
539	Lovegrove, Thomas J.	Casting iron pipe, employing centrifugal force in	March 23, 1858	Reissue.
21509	Lovejoy, Henry, and Robert Wheeler	Electrotype moulds, machine for coating	Sept. 14, 1858	XVIII.

19784	Loveland, John C.	Scissors sharpener	March 30, 1858	XVII.
20498	Loveless, C. B.	Lamps, burners for vapor	June 8, 1858	V.
20883	Loveless, T. W.	Pile-driver, adjustable	July 13, 1858	IX.
21396	Lovelidge, T., assignor to himself and William Fulfirth.	Knitting-machine	Aug. 31, 1858	III.
19571	Loving, Josephus	Press, cotton	March 9, 1858	XII.
19644	Low, H. H.	Sawing-machine	March 16, 1858	XIV.
19570	Low, William H.	Valve, safety	March 9, 1858	VI.
20355	Low, Henry	Paper pulp from reeds, preparing	May 25, 1858	III.
20884	Lowe, Henry	Paper stock from reeds	July 13, 1858	III.
20851	Lowe, Joshua, assignor to himself and Daniel Barnum.	Gauge, magnetic steam	July 6, 1858	VI.
21971	Lowman, Elias B.	Railroad turn or circular switch, miner's	Nov. 2, 1858	IX.
20950	Lown, J. (See Pittock, Richmond, & Phelps, assignors.)	Mill-stone dress	July 20, 1858	XIII.
20127	Loy, G. W.	Vehicles, adjustable seats of	April 27, 1858	X.
19373	Lucas, George J., assignor to himself and John G. Lucas.	Refrigerator	Feb. 16, 1858	XXII.
19859	Ludlow, W. D.	Seeding-machine	April 6, 1858	I.
19428	Ludlum, James, and James Horner. (See Bailey, John A., assignor.)	Looms, pickers for	Feb. 23, 1858	III.
21142	Lutgens, H. A., and H. Uhry. (See Uhry & Luttgens.)	Gas, apparatus for generating	Aug. 10, 1858	IV.
19859	Lutz, J. B.	Cans for preserving food	May 11, 1858	XVII.
21428	Lyford, Zebulon	Cans for preserving food, &c.	June 29, 1858	XVII.
20209	Lyles, Henry	Fibre of wood, separating the	Aug. 3, 1858	III.
20722	Lyman, A. S.	Protractor	Aug. 25, 1858	VIII.
21077	Lyman, A. S.	Pitcher, refrigerating	May 8, 1858	XVII.
20356	Lyman, Josiah	Cans, preserve, method of sealing	June 31, 1858	XVII.
20499	Lyman, W. W.	Cans, fruit	Aug. 28, 1858	XVII.
21348	Lyman, W. W.	Paper, machine for wetting	Dec. 27, 1858	XVIII.
22436	Lyman, W. W.	Seeding-machine	April 31, 1888	I.
20077	Lynch, John A.	Ovens by steam, method of heating	Sept. 28, 1858	V.
21350	Lyon, E. L.			
21610	Lyon, Hamilton			
	Lyon, Jackson. (See Haley, Wilson, & Lyon.)			



*Patentees of inventions and designs, 1848.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22101	Lyon, James, and George H. Brady, assignors to themselves and Thomas J. Falls, jr.	Bungs, machine for cutting-----	Nov. 16, 1858-----	XIV.
19429	Lyon, John H.-----	Coal, machines for splitting-----	Feb. 23, 1858-----	V.
20885	Lyon, John H.-----	Stone, machine for drilling and splitting-----	July 13, 1858-----	XV.
22297	Lytle, R. McG., William J. Alston, and Lorenzo W. True.	Chair, folding-----	Dec. 14, 1858-----	XVII.
21510	Macardle, G. (See Haskins & Macardle.)	Valve cock-----	Sept. 14, 1858-----	VI.
20649	Macdonald, J. C.-----	Lamp, vapor-----	June 22, 1858-----	V.
20648	Mace, A. M.-----	Lamp burner, vapor-----	June 22, 1858-----	V.
21893	Mace, A. M.-----	Burner, hydro-carbon vapor-----	Oct. 26, 1858-----	V.
22255	Mackay, T. B. (See Gray, Joshua, assignor.)	Sewing-machine-----	Dec. 7, 1858-----	III.
20165	Mackenzie, John-----	Metallic tubes, punching-----	May 4, 1858-----	II.
20282	Mackerley, B.-----	Grinding, toothed cylinder for-----	May 18, 1858-----	XIII.
187	Mackerley, Benjamin-----	Mill, cider-----	Jan. 19, 1858-----	Add. imp't.
21235	Mackintosh, W., and S. Wadsworth, assignors to Cridge, Wadsworth, & Co	Valves, steam-----	Aug. 17, 1858-----	VI.
20724	Macnish, J.-----	Knife and spoon cleaner-----	June 29, 1858-----	XVII.
20025	Macnish, James-----	Churn-----	April 20, 1858-----	I.
20803	Macnish, James, (A)-----	Churn-----	July 6, 1858-----	I.
20804	Macnish, James, (B)-----	Churns-----	July 6, 1858-----	I.
630	Macnish, James-----	Churn-----	Dec. 1, 1858-----	Reissue.
20283	Macomber, H. N.-----	Lamp, vapor-----	May 18, 1858-----	V.
21571	Macrum, N. G. (See Barnes, Henry, assignor.)	Horse-shoe-----	Sept. 21, 1858-----	II.
21206	Maddock, John-----	Excavating-machine-----	Aug. 17, 1858-----	IX.
21397	Maffet, William R.-----	Planter, seed-----	Aug. 31, 1858-----	I.
19785	Mahaffey, W. A., assignor to John Greek-----	Diving-bell-----	Mar. 30, 1858-----	VII.
20650	Maillefert, B.-----	Corn-sheller-----	June 22, 1858-----	I.
21265	Main, W. H.-----	Harrow, rotary-----	Aug. 24, 1858-----	I.
22026	Main, William H.-----	Harrow, rotary-----	Nov. 9, 1858-----	I.

20284	Mailbert, Jean B., and Auguste Cheviron	Cradle, spring rocking	May	18, 1858	XVII.
19737	Maliphant, C., assignor to Thomas West	Ships' bulk-head	Mar.	23, 1858	VII.
21765	Mallerd, William	Gas regulator	Oct.	12, 1858	IV.
21839	Mallory, George	Skirt, hoop	Oct.	19, 1858	XXI.
19035	Mallory, George H.	Dovetailing rotary-cutters in their heads, method of.	Jan.	5, 1858	XIV.
22083	Mallory, George H.	Shingles, machine for sawing and planing	Nov.	16, 1858	XIV.
21078	Manley, E.	Can, preserve	Aug.	3, 1858	XVII.
21972	Manley, E.	Soldering, machine for	Nov.	2, 1858	II.
21352	Mann, C. M.	Car seats, railroad	Aug.	31, 1858	X.
22437	Mann, Howard	Cultivator	Dec.	29, 1858	I.
21351	Mann, John L.	Bending fellos, machine for	Aug.	31, 1858	XIV.
20681	Mann, R. J., assignor to L. A. Osborn and I. J. Vincent.	Skirt, hoop	June	22, 1858	XXI.
22051	Mann, R. J., assignor to L. A. Osborn and I. J. Vincent.	Skirt, skeleton hoop	Nov.	9, 1858	XXI.
21009	Manning, S. B.	Bran-duster	July	27, 1858	XIII.
19860	Manning, Samuel B.	Smut-machine	April	6, 1858	I.
19509	Manning, W.	Barrel-heads, machine for cutting	Mar.	2, 1858	XIV.
22330	Manning, William H., assignor to himself and Lucius H. Olmsted.	Soap, machine for cutting	Dec.	14, 1858	IV.
20805	Manny, J. P.	Harvester, raking and binding attachment to	July	6, 1858	I.
20806	Manny, J. P.	Harvester	July	6, 1858	I.
20807	Manny, J. P.	Harvester, track-cleaner for	July	6, 1858	I.
20808	Manny, J. P.	Harvester, fingers	July	6, 1858	I.
20809	Manny, J. P.	Grain in bundles or sheaves, mode of securing	July	6, 1858	I.
22298	Mansfield, Joseph	Bath, shower	Dec.	14, 1858	XX.
19787	Manton, Joseph P.	Windlass	Mar.	30, 1838	VII.
20438	Manville, E. J., and S. G. Blackman	Gas apparatus	June	1, 1858	IV.
21010	Marcell, M. R.	Churn	July	27, 1858	I.
19936	Marcellus, A.	Mowing-machine, track-clearers for	April	13, 1858	I.
19938	Marcellus, H.	Harvester, grain and grass	April	13, 1858	I.
19999	Marcellus, H.	Harvester	April	20, 1858	I.
20164	Marcellus, H.	Mowing-machine	May	4, 1858	I.
21430	March, H. E. (See Delany, E. J., assignor.)	Gilding, apparatus for preparing elliptical frames for.	Sept.	7, 1858	XVIII.
22184	Markham, Daniel, and Austin S. and David Eldred.	Seeding-machine	Dec.	1, 1858	I.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21687	Marks, Joseph	Spark-arrester	Oct. 5, 1858	VI.
20285	Marland, John	Spindle, machine for applying cop-tubes to	May 18, 1858	III.
21169	Marsh, A., assignor to himself, E. H. Hovell, J. Q. Dudley, and R. Holmes.	Gas-retort	Aug. 10, 1858	IV.
21207	Marsh, C. W. and W. W.	Reaping-machine	Aug. 17, 1858	I.
22084	Marsh, George. (See McClure & Marsh.)			
22185	Marsh, James S.	Harvester	Nov. 16, 1858	I.
22299	Marsh, Nathan B.	Preservation of flesh for food	Dec. 1, 1858	IV.
22256	Marshall, Edward	Cannon, breech-loading	Dec. 14, 1858	XIX.
22438	Marshall, Edward	Saw-set	Dec. 7, 1858	II.
20500	Marshall, F. M.	Planter, seed	Dec. 28, 1858	I.
22128	Marshall, J. V.	Piano-forte action	June 8, 1858	XVIII.
20571	Marshall, W. H. (See Ross & Marshall.)			
21999	Marshall, H., and C. F. Foulke.	Smut-machine	Nov. 23, 1858	XIII.
21894	Marston, John R.	Lock, door	June 15, 1858	II.
19036	Martin, George G. (See Rollin, Daniel G., as signor.)	Weighing-cart	Nov. 2, 1858	XII.
22401	Martin, James W., assignor to Lewis Rothermel.			
19374	Martin, Levi L. (See Thayer & Martin.)			
19786	Martino, John. (See Delany & Martino.)			
22129	Martratt, C.	Press, cotton	Oct. 26, 1858	XII.
22186	Martz, George	Hoisting and dumping coal	April 13, 1858	XII.
19036	Martz, George	Hoisting and dumping apparatus	Sept. 7, 1858	IX.
22401	Marvin, Walter K. (See Horton, W. F., as signor.)			
19374	Mary, Nicholas	Process of dyeing silk, &c.	Jan. 5, 1858	IV.
19786	Marzoni, C., assignor to J. Gandolpho.	Paper pulp from wood, manufacture of	Dec. 21, 1858	III.
22129	Mason, C. (See Doane & Mason.)			
22186	Mason, John C.	Hinge	Feb. 16, 1858	II.
19374	Mason, John L.	Lathe, chuck	Mar. 30, 1858	II.
22129	Mason, John L.	Bottles, moulds for making	Nov. 23, 1858	XV.
22186	Mason, John L.	Bottles, screw-neck	Dec. 1, 1858	XXII.

20952	Mason, N.....	Lamp, vapor-burning.....	July	20, 1858.....	V.
19861	Mason, S., and E. M. Davis.....	Vise anvil for repairing T rails.....	April	6, 1858.....	II.
20281	Mason, Sandford, and Edward M. Davis.....	Rails, T, block for repairing.....	May	18, 1858.....	IX.
19147	Mason, William. (See Fay & Mason.)	Freezer, ice cream.....	Jan.	19, 1858.....	XVII.
19146	Masser, H. B.....	Switch, portable railroad.....	Jan.	19, 1858.....	IX.
21266	Mast, P. P. (See Thomas & Mast.)	Rails for switching cars off.....	Aug.	24, 1858.....	IX.
21266	Mather, John C.....	Smoking-tube.....	Nov.	2, 1858.....	XXII.
21973	Mathews, Charles.....	Gilding on glass, mode of protecting.....	April	27, 1858.....	XVIII.
20078	Mathews, P. V.....	Sinks, sewers, &c., flushing valve-trap for.....	July	27, 1858.....	IX.
21011	Mathews, S. R. C. (See Race & Mathews.)	Pasteboard and paper, manufacture of leather.....	April	20, 1858.....	III.
20020	Mathieu, Adolph Nicholas, assignor to M. J. A. Ginet.	Plough-gang.....	June	22, 1858.....	I.
20647	Matteson, Don C.....	Power, mechanical.....	Sept.	28, 1858.....	XIII.
21611	Matteson, Elisha.....	Car-boxes, railroad.....	Jan.	12, 1858.....	X.
19095	Matthew, David. (See Grimes, C., assignor.)	Locomotive axle-bearings.....	Dec.	8, 1858.....	VI.
22439	Matthew, David.....	Alarm-clock, burglar's.....	July	6, 1858.....	XXII.
20810	Matthewman, J.....	Harvester, maize.....	Oct.	19, 1858.....	I.
21840	Matthews, C. B.....	Engine, rotary steam.....	April	13, 1858.....	VI.
19967	Matthews, Levi, assignor to himself and J. K. Andrews.	Transit instrument.....	Oct.	26, 1858.....	VIII.
21895	Mathewson, R. C.....	File-machine.....	May	18, 1858.....	II.
20286	Mattice, F. M.....	Barrel-heads, machine for cutting.....	Mar	2, 1858.....	XIV.
19510	Mattison, James H.....	Barrels, machine for chamfering and crozing.....	Oct.	12, 1858.....	XIV.
21769	Mattison, James H.....	Packing flour, machine for.....	Mar.	9, 1858.....	XII.
19572	Mattison, Judson.....	Harvester, corn.....	Nov.	2, 1858.....	Reissue.
618	Mauck, R. C., and W. T. McGahey.....	Signals on railroads, mode of transmitting magnetic.....	Oct.	5, 1858.....	VIII.
21688	Maule, Henry.....	Bar for securing bank vaults.....	April	13, 1858.....	II.
19940	Maurer, William.....	Bedstead.....	Oct.	19, 1858.....	XVII.
21841	Maxwell, R.....	Bedstead-fastening.....	Sept.	14, 1858.....	XVII.
21511	May, Isaac M.....	Paddle-wheel propeller.....	Sept.	7, 1858.....	VII.
21432	May, John.....	Corn, machine for picking.....	Dec.	28, 1858.....	I.
22440	May, S. W.....	Sowing fertilizers, machine for.....	Feb.	23, 1858.....	I.
19431	May, William H., and Charles W. Coontz.....	Spring door.....	Dec.	28, 1858.....	II.
22441	Mayall, Thomas J.....	Stair-pad, elastic.....	Oct.	12, 1858.....	XVII.
21799	Mayall, Thomas J., assignor to himself and Benjamin F. Cooke.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22218	Mayall, Thomas J., assignor to himself and G. N. Davis.	Rubber, hard, manufacture of -----	Dec. 1, 1858-----	IV.
19430	Maydole, James H.-----	Stones, machine for gathering -----	Feb. 23, 1858-----	I.
21012	Maynard, G.-----	Carriages for children, hanging-----	July 27, 1858-----	X.
22300	Maynard, Gilbert-----	Carriage, children's -----	Dec. 14, 1858-----	X.
19145	Maynard, William G. (See Hathaway, William, assignor.)	Sawing-machine-----	Jan. 19, 1858-----	XIV.
523	Mays, John-----	Books, account, machine for numbering the pages of-----	Jan. 26, 1858-----	Reissue.
20357	McCammeron, Joseph-----	Seeding-machine -----	May 25, 1858-----	I.
	McCarty, Henry -----	Gates, lock, manner of suspending, opening, and closing.-----	Mar. 16, 1858-----	Extension.
20079	McCarty, John-----	Horse-shoes, machine for making -----	April 27, 1858-----	II.
20437	McCarty, John-----	Water-wheel, horizontal.-----	June 1, 1858-----	XI.
21572	McCausland, John and Jefferson & James-----	Canal boat.-----	Sept. 21, 1858-----	VII.
21842	McClay, Henry-----	Mop and brush combined -----	Oct. 19, 1858-----	XVII.
21766	McClean, William M. (See Borum & McClean.)	Carriage-wheels, box for-----	Oct. 12, 1858-----	X.
21301	McClelland, R. W.----- McClintock & Cumberland. (See Cumberland & McClintock.)	Collar-blocks, horse-----	Aug. 24, 1858-----	XVI.
20652	McClure, B. W., and George Marsh, assigns to B. W. McClure and J. H. Windsor.	Vehicles, metallic wheels for-----	June 22, 1858-----	X.
19706	McCollum, J. (See Schuyler, J. S., assignor.)	Plough -----	Mar. 23, 1858-----	I.
19433	McCollum, J. (See McConaughy, T, and J. McCollum.)	Railroads, construction of the permanent way of-----	Feb. 23, 1858-----	IX.
578	McConnell, James E., and William Seaton-----	Reaping-machine -----	Aug. 3, 1858-----	Reissue.
579	McCormick, C. H.-----	Reaping-machine -----	Aug. 3, 1858-----	Division of reissue.

21573	McCormick, C. H.	Grass, &c., machine for cutting	Sept.	21, 1858	i.
637	McCormick, Cyrus H.	Reaping-machine	Dec.	21, 1858	Reissue.
20080	McCormick, J. B.	Harvester	April	27, 1858	I.
21349	McCormick, J. B., and W. R. Baker	Seeding-machine	Aug.	31, 1858	I.
20212	McCormick, L. J., William S., & C. H.	Reaping and mowing machine	May	11, 1858	I.
19942	McCracken, James	Furnace	April	13, 1858	V.
21433	McCray, S. B.	Valve governor for steam-engines	Sept.	7, 1858	VI.
21512	McCreary, John	Tenoning-machine	Sept.	14, 1858	XIV.
21143	McCue, J. & W. B.	Distilling oils from coal, retort for	Aug.	10, 1858	IV.
20572	McDonald, A.	Planter, cotton-seed	June	15, 1858	I.
	McDowell, Leibrandt, & Co. (See Smith & Brown, assignors.)				
19648	McElheran, John	Types, picture	Mar.	16, 1858	XVIII.
19707	McElheran, John	Graphotype	Mar.	23, 1858	XVIII.
20081	McElheran, John	Stereotype plates, method of preparing	April	27, 1858	XVIII.
21208	McElheran, John	Cerotypography, feed-motion for	Aug.	17, 1858	XVIII.
19432	McEvoy, Charles A.	Refrigerator, table	Feb.	23, 1858	XVII.
19862	McFarlan, Thomas W., and Lewis H. Davis	Corn-sheller	April	6, 1858	I.
22257	McFarland, William	Furnace for melting iron	Dec.	7, 1858	V.
	McFisher & Green. (See Green & McFisher.)				
	McGahey, W. T. (See Manck & McGahey.)				
19574	McGee, Melville	Cars, railroad, mode of operating brakes of	Mar.	9, 1858	X.
21513	McGeorge, H. D.	Hemp brake	Sept.	14, 1858	III.
22187	McGerrah, John	Fastener, shutter	Nov.	30, 1858	II.
19375	McGhan, Francis	Closet, water	Feb.	16, 1858	IX.
19937	McGill, George W.	Door-fastener	April	13, 1858	II.
20951	McGinniss, Cornelius	Casting iron kettles	July	20, 1858	II.
22372	McGrew, James C.	Elevating hay, machine for	Dec.	21, 1858	XII.
22442	McIntire, Charles	Shirt-stud	Dec.	28, 1858	XXI.
20573	McIntosh, C.	Lamps for lighting gas	June	15, 1858	V.
19941	McIntyre, James C.	Shutters, illuminating iron rolling	April	13, 1858	IX.
	McIntyre, M. (See Sullivan D., assignor.)				
20359	McKeachnie, A.	Foot-cleaner	May	25, 1858	XVII.
20211	McKenzie, James	Wrench	May	11, 1858	II.
19573	McKibbin, W.	Bridges, &c., constructing framing of	Mar.	9, 1858	IX.
	McKinlay, James M. (See Bosworth, Zephaniah, assignor.)				
21353	McKinstry, W. P.	Carriage, children's	Aug.	31, 1858	X.
20651	McKown, J.	Planters, seed	June	22, 1858	I.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20287	McLaughlin, P.-----	Vessels, worming, parcelling, and serving the rig- ging of.-----	May 18, 1858.-----	VII.
22443	McLaurin, D. and W. (See Bellingrath, Leonard, jr., assignor.)-----	Corsets -----	Dec. 28, 1858.-----	XXI.
19225	McLauthlin, George T. (See Rider, Caleb, as- signor.)-----	Sails, top reefing -----	April 26, 1858.-----	VII.
22258	McLean, Aaron, R. (See Norman & McLean.)-----	Life-berth for vessels.-----	Dec. 7, 1858.-----	VII.
21767	McLean, Anne S.-----	Truss-pads.-----	Oct. 12, 1858.-----	XX.
22188	McLellan, A. J. (See Fraser & McLellan.)-----	Lightning-rods, supporting insulator for -----	Nov. 30, 1858.-----	VIII.
21975	McLeod, N. N.-----	Plough.-----	Nov. 2, 1858.-----	I.
20358	McMahon, A. A.-----	Seeding-machine -----	May 25, 1858.-----	I.
21768	McMillen, G. M. L.-----	Paper-making cylinders, constructing frames for wire-cloth -----	Oct. 12, 1858.-----	III.
19437	McMurtry, John, assignor to Daniel Wiehl.-----	Bale-hoops, cotton.-----	Feb. 23, 1858.-----	XII.
21052	McMurtry, John, assignor to James B. Clow and John Best.-----	Car-seats, railroad -----	July 27, 1858.-----	X.
19303	McMurtry, Samuel G.-----	Bolts, flour.-----	Feb. 9, 1858.-----	XIII.
22085	McNair, F.-----	Drill, hand.-----	Nov. 16, 1858.-----	II.
21612	McNamara, David S.-----	Harvesters -----	Sept. 28, 1858.-----	I.
20166	McNary, John -----	Lathe, automatic.-----	May 4, 1858.-----	XIV.
20000	McNeill, A.-----	Coal-scuttle and ash-sifter combined.-----	April 20, 1858.-----	V.
20811	McNeill, T. E.-----	Pan, dust -----	July 6, 1858.-----	XVII.
19304	McVeigh, William.-----	Railroad-station pumps, method of operating.-----	Feb. 9, 1858.-----	IX.
19788	McVicher, J.-----	Washing-machine -----	Mar. 30, 1858.-----	XVII.
20001	McWhorter, F. S.-----	Planter, potato.-----	April 20, 1858.-----	I.
	McWilliam, J. H., et al. (See Carhardt & Moore, assignors.)-----			

20360	Meacham, B. B.	Corn-husker	May	25, 1858	I.
20653	Mears, L. R.	Corn-husker	June	22, 1858	I.
19037	Mecay, Samuel P.	Washing-machine	Jan.	5, 1858	XVII.
	Megratten, Ferris, & Garrett. (See Ferris, Garrett, & Megratten.)				
21423	Megraw, William A. (See Shaw & Megraw.)	Bells, hanging	Sept.	7, 1858	XVII.
	Meneely, George R.				
19038	Mensell, John, <i>et al.</i> (See Hofman, Francis, assignor.)	Tin, machine for bending	Jan.	5, 1858	II.
20812	Merk, George W.	Plough, hill-side	July	6, 1858	I.
20953	Merk, M.	Propeller	July	20, 1858	VII.
19943	Merick, D. E.	Stencil-pallet	April	13, 1858	XVIII.
	Merriam, J. H.				
20954	Merrick, Silas. (See Miner & Merrick.)	Fire-arm, breech-loading	July	20, 1858	XIX.
21770	Merrill, James H.	Match safe, friction, portable and water-proof	Oct.	12, 1858	XXII.
19863	Merrill, Platt	Fence-post	April	6, 1858	IX.
19434	Merrill, R.	Fence, field, device for connecting the panels of	Feb.	23, 1858	IX.
20725	Merritt, Rensselaer	Fish at sea, net for catching	June	29, 1858	XXII.
19305	Merritt, Benjamin, jr.	Boots and shoes, method of attaching India-rubber soles to	Feb.	9, 1858	XVI.
	Merwin, Abraham T.				
22086	Meschutt, James M.	Tongs for coal, &c.	Nov.	16, 1858	XVII.
20288	Meyer, Henry	Mill for treating Chinese sugar-cane	May	18, 1858	XIII.
20439	Michel, F. W., W. Wilcox, and H. T. Miller	Shoe, over, straw and wood	June	1, 1858	XVI.
19096	Michener, William R.	Valve, steam	Jan.	12, 1858	VI.
19789	Mickles, M. L., and L. S. Olmsted	Cars, railroad, ticket-holder for	Mar.	30, 1858	X.
19738	Mihan, P., assignor to P. Mihan and G. Davis	Egg-beater	Mar.	23, 1858	XVII.
19114	Mihan, Patrick, assignor to himself and Gilman Davis.	Stoves, gas	Jan.	12, 1858	V.
21896	Miles, Jasper S.	Glass, ornamenting	Oct.	26, 1858	XVIII.
20654	Millar, John	Car-seats, railroad	June	22, 1858	X.
21800	Millar, W., assignor to himself and John Nutt	Sewing-machine	Oct.	12, 1858	III.
20886	Miller, A. C.	Sawing-machine, carriage for	July	13, 1858	XIV.
20726	Miller, Alexander	Gauge-cock and alarm-whistle	June	29, 1858	VI.
21079	Miller, David L.	Presses, mode of operating	Aug.	3, 1858	XII.
19254	Miller, George	Bedstead, invalid	Feb.	2, 1858	XVII.
19307	Miller, Henry	Wood, clamp for holding rectangular pieces of, while being bored, tapped, &c.	Feb.	9, 1858	XIV.
	Miller, H. T. (See Michel, Wilcox, & Miller.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19646	Miller, Henry. (See Miller & Reamer.)	Door-register.....	Mar. 16, 1858.....	XIV.
21689	Miller, John G.....	Lock, bank.....	Oct. 5, 1858.....	II.
20180	Miller, L. H.....	Harvesters.....	May 4, 1858.....	I.
20181	Miller, Lewis, assignor to C. Aultman & Co., (No. 1.)	Harvesters.....	May 4, 1858.....	I.
20182	Miller, Lewis, assignor to C. Aultman & Co., (No. 2.)	Harvesters.....	May 4, 1858.....	I.
20243	Miller, Lewis, assignor to Aultman & Co.....	Harvesters, finger or guard for.....	May 11, 1858.....	I.
21209	Miller, Max.....	Lantern for burning coal-oil.....	Aug. 17, 1858.....	V.
19608	Miller, S. W. (See Hay, Adam, assignor.)	Match-machine.....	Mar. 9, 1858.....	XXII.
20391	Miller, Samuel, and William Gates, jr., assignors to William Gates, jr.	Knife-cleaner.....	May 25, 1858.....	XVII.
20763	Miller, W., assignor to himself and D. S. French.	Sewing-machine.....	June 29, 1858.....	III.
19864	Miller, W. K.....	Harvester.....	April 6, 1858.....	I.
19306	Milliken, James.....	Railroad-chairs, manufacture of wrought-iron.....	Feb. 9, 1858.....	IX.
19148	Mills, P. W.....	Threshing-machine.....	Jan. 19, 1858.....	I.
22189	Mills, R. L.....	Gauge-cock.....	Nov. 30, 1858.....	VI.
21171	Mills, S. S.....	Fibre from the pulp in hemp leaves, machine for separating the.....	Oct. 12, 1858.....	III.
20213	Miltenberger, Thomas.....	Photographs, compound.....	May 11, 1858.....	XVIII.
21613	Minard, A.....	Dredging machine.....	Sept. 28, 1858.....	IX.
22087	Miner, John, and Silas Merrick.....	Wash-board.....	Nov. 16, 1858.....	XVII.
22190	Mingis, James. (See Stancliff & Mingis.)	Sheep, apparatus for holding.....	Nov. 30, 1858.....	I.
19039	Minnich, S.....	Brooms, construction of.....	Jan. 5, 1858.....	XVII.
19040	Mitchell, Abner.....	Boots and shoes, metal tips for toes of.....	Jan. 5, 1858.....	XVI.
632	Mitchell, George A.....	Boots and shoes, metal tips for toes of.....	Dec. 7, 1858.....	Reissue.
21434	Mitchell, George A.....	Reaping-machine, binding attachment to.....	Sept. 7, 1858.....	I.

20813	Mitchell, Jeremiah	Harvesters	July	6, 1858	I.
21843	Mitchell, John B.	Fence, field	Oct.	19, 1858	IX.
19113	Mitchell, V. N., assignor to himself and H. A. Area and C. N. White.	Carriage, shafts and poles to, attaching	Jan.	12, 1858	X.
22000	Mix, E. M. and J. E., assignors to themselves and C. D. Johnson.	Lock, pad	Nov.	2, 1858	II.
540	Moffitt, John R.	Separator, grain	Mar.	23, 1858	Reissue.
19865	Moffitt, John R.	Threshing-machine	April	6, 1858	I.
19814	Monestier, J., assignor to R. F. Spangenberg	Musicians, hand-exercise for	Mar.	30, 1858	XVIII.
603	Monnier, A.	Acid, sulphuric, manufacture of	Sept.	21, 1858	IV.
20291	Monnier, Alfred	Zinc, metallic, manufacture of	May	18, 1858	II.
20655	Monnier, Alfred	Sulphurets, metallic, treatment of	June	22, 1858	IV.
19376	Monnin, Charles	Ice spur	Feb.	16, 1858	XXII.
21267	Monroe, Freedom	Harnesses	Aug.	24, 1858	XVI.
19150	Monroe, J. (See Frost & Monroe)	Tube joint, gas	Jan.	19, 1858	II.
536	Monson, Charles	Gas-tube joint	Mar.	9, 1858	Reissue.
19944	Monson, Charles	Pipes, gas, conduit joint for	April	13, 1858	II.
22027	Montague, Charles	Printing-press	Nov.	9, 1858	XVIII.
20167	Montgomery, James	Boiler, steam	May	4, 1858	VI.
21013	Montgomery, James	Boilers, steam, grates for	July	27, 1858	IX.
22373	Montgomery, James	Propeller, buoyant	Dec.	21, 1858	VII.
22444	Montgomery, R.	Pavement, iron	Dec.	28, 1858	IX.
21435	Moody, B. D. (See Davis, Abbott R., assignor.)	Callipers and dividers	Sept.	7, 1858	VIII.
21015	Moon, Joseph D.	Sewing-machine	July	27, 1858	III.
19149	Moore, C.	Press for packing the pulp of linseed or other seeds preparatory to extracting the oil from them.	Jan.	19, 1858	XII.
19708	Moore, Charles	Press for extracting oil from linseed	March	23, 1858	XII.
20290	Moore, Charles	Mills, chasing	May	18, 1858	XIII.
19436	Moore, Daniel	Tongs, fire	Feb.	23, 1858	V.
19308	Moore, E., William Clark, and James Lindsey	Stave-machine	Feb.	9, 1858	XIV.
22301	Moore, F. H.	Stair-sweeper	Dec.	14, 1858	XVII.
21614	Moore, H. W.	Car-wheels, cast-iron	Sept.	28, 1858	X.
19813	Moore, Isaac, assignor to himself and Francis Gore.	Steering-apparatus	March	30, 1858	VII.
21354	Moore, Jacob. (See Hough & Moore.) Moore, Lewis	Seeding-machine	Aug.	31, 1858	I.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19255	Moore, Solomon K. (See Dulaney, George L., assignor.)	Hemp-brake	Feb. 2, 1858	III.
21108	Moore, Solomon P.	Beef and other steaks tender, machine for making	Aug. 3, 1858	XVII.
22146	Moore, T. W., assignor to Elliott & Moore	Lock	Nov. 23, 1858	II.
22191	Moore, W. (See Carhart & Moore.)	Valve-gear of steam-engine	Nov. 30, 1858	VI.
20656	Moore, William, assignor to George L. Cameron.	Seeding-machine	June 22, 1858	I.
19866	Moran, Edward	Metal-plates, coated	April 6, 1858	II.
517	Morehouse, W	Sewing-machine	Jan. 12, 1858	Reissue.
518	Moorewood, Edmund, and George Rogers	Sewing-machine	Jan. 12, 1858	Division of reissue.
19667	Morey, C., and J. B. Johnson, assignors to J. M. Singer and Edward Clark.	Soap, process of making	March 16, 1858	IX.
21670	Morfit, Campbell	Cultivator	Oct. 5, 1858	I.
20501	Morgan, B. S.	Shingle-machines, device for operating the bolt to obtain taper in.	June 8, 1858	XIV.
19199	Morgan, B. S. (See Seymour & Pease, assignors.)	Shingle-machine	Jan. 26, 1858	XIV.
20502	Morgan, D. S. (See Platt, N., assignor.)	Tanning, method of	June 8, 1858	XVI.
21268	Morgan, E.	Rake, horse	Aug. 24, 1858	I.
21210	Morgan, Mirick	Steering-apparatus	Aug. 17, 1858	VII.
20574	Morley, Franklin A.	Washing-machine	June 15, 1858	XVII.
22192	Morrall, Benjamin D.	Valves of steam-engine	Nov. 30, 1858	VI.
20289	Morrill, A. R.	Lamps, aerovapor burners for	May 18, 1858	V.
21691	Morrill, Amos. (See Russell & Morrill.)	Iron, sheet, rolls for making	Oct. 5, 1858	II.
21692	Morrill, Oscar F.	Hammer and anvil, trip	Oct. 5, 1858	II.
21772	Morris, David A.	Iron, sheet, manufacture of	Oct. 12, 1858	II.

21014	Morris, E. ....	Railroad-rails, splice pieces for .....	July	27, 1858 .....	IX.
22445	Morris, George W. (See Solomon & Morris.) Morris, Henry .....	Motion, rotary, device for transmitting .....	Dec.	28, 1858 .....	XIII.
20082	Morris, James. (See Corbin & Morris.) Morrison, Fuller, and Warren. (See Hathaway, David, assignor.)	Bridges, truss, metallic-shoe for .....	April	27, 1858 .....	IX.
21865	Morrison, D. H. ....	Chronometer-escapement .....	Oct.	19, 1858 .....	VIII.
22374	Morrison, Thomas, assignor to A. S. Solomons .....	Seeding-machine .....	Dec.	21, 1858 .....	I.
20503	Morse, Albert W. ....	Fire-arms, breech-loading .....	June	8, 1858 .....	XIX.
20214	Morse, G. A. (See Williams & Morse.) Morse, G. W. ....	Cartridge case .....	May	11, 1858 .....	XIX.
20727	Morse, George W. ....	Cartridges .....	June	29, 1858 .....	XIX.
19815	Morse, George W. ....	Lock, permutation .....	March	30, 1858 .....	II.
19435	Morse, J. H., assignor to himself and L. Patee .....	Car-springs, railroad .....	Feb.	23, 1858 .....	X.
20922	Morse, Stephen .....	Stamps, hand .....	July	13, 1858 .....	XVIII.
21615	Morse, T. L. (See Disston & Morse.) Morse, W., and J. Hughes, assignors to G. H. & A. F. Devereux, and O. W. & E. E. Barrett.	Wagon, ambulance .....	Sept.	28, 1858 .....	X.
20361	Moses, Israel .....	Straw-cutter .....	May	25, 1858 .....	I.
19198	Moses, Oren .....	Planter, corn .....	Jan.	26, 1858 .....	I.
20887	Moseir, P. C. ....	Reaping and mowing machine .....	July	13, 1858 .....	I.
21616	Moss, Edward. (See Klemm, Theodor, assignor.) Moul, C. ....	Key-hole stop .....	Sept.	28, 1858 .....	II.
21617	Moulson, John .....	Lamp .....	Sept.	28, 1858 .....	V.
19309	Mullholland, William .....	Bricks, mode of burning .....	Feb.	9, 1858 .....	XV.
22193	Mullen, A. J., and Robert Hall .....	Wood, angular pieces of, machine for cutting curvilinear surfaces on.	Nov.	30, 1858 .....	XIV.
20888	Muller, George .....	Watches, escapement of .....	July	13, 1858 .....	VIII.
19200	Muma, Jacob .....	Straw-cutter .....	Jan.	26, 1858 .....	I.
20504	Mumma, J. H. ....	Wagons, &c., brake for .....	June	8, 1858 .....	X.
22446	Munroe, B. B. ....	Fastener, blind .....	Dec.	28, 1858 .....	II.
19790	Murphy, John .....	Wrench .....	March	30, 1858 .....	II.
22259	Murray, Archibald .....	Harvesters, corn .....	Dec.	7, 1858 .....	I.
20608	Murray, B. (See Van Doren, John, assignor.) Murray, B. (See Glover, Carlos W., assignor.) Murray, Bronson. (See Van Doren, John, assignor.) Murray, Bronson, and John Van Doren .....	Cannon, breech-loading .....	June	15, 1858 .....	XIX.
	Murrill, J. H., assignor to himself, and J. Flynn, and P. Emrich.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19816	Musgrave, T., assignor to Anna L. Musgrave.	Wool, machine for burring	March 30, 1858	III.
19256	Musser, William R., and John Coleman	Press, tobacco	Feb. 2, 1858	XII.
21436	Myers, F. R., and F. H. Furniss	Cars, railroad, couches for	Sept. 7, 1858	X.
21976	Nagele, John	Presses for embossing and figuring velvet, &c.	Nov. 2, 1858	XXII.
22302	Nance, Z. F.	Irregular forms, machine for turning	Dec. 14, 1858	XIV.
21016	Nash, E. H.	Milk, closet for	July 27, 1858	XVII.
20083	Natcher, G.	Millstone dress	April 27, 1858	XIII.
20084	Natcher, G.	Millstone dress	April 27, 1858	XIII.
	Nathurst, Rudolph A. (See Stewart, J. L., assignor.)			
21897	Naughten, James	Refrigerator	Oct. 26, 1858	XVII.
	Neal, Benjamin F. (See Floyd, Thos., assignor.)			
19438	Neal, Daniel B.	Planter, cotton-seed	Feb. 23, 1858	I.
20575	Neal, Daniel B.	Seeding-machine	June 15, 1858	I.
21269	Neal, Daniel B.	Harrow	Aug. 24, 1858	I.
19257	Neal, W. W.	Washing-machine	Feb. 2, 1858	XVII.
22130	Nece, J.	Saddle-trees	Nov. 23, 1858	XVI.
20577	Neer, C.	Cracker-machine	June 15, 1858	XVII.
20576	Neer, Charles	Window blinds, metallic	June 15, 1858	IX.
1025	Neidig, H. (A)	Bedstead	July 13, 1858	Design.
1024	Neidig, H. (B)	Bedstead	July 13, 1858	Design.
21618	Nelson, J. H.	Planing irregular surfaces, machine for	Sept. 28, 1858	XIV.
21437	Nelson, John	Harvesters, raking attachment to	Sept. 7, 1858	I.
20889	Nelson, M.	Propeller, boat	July 13, 1858	VII.
19576	Nelson, N. C.	Skirt supporter	March 9, 1858	XXI.
21898	Nelson, Robert	Water, device for elevating, by the combustion of a volatilizable hydro-carbon.	Oct. 26, 1858	XI.
	Nelson, S. D.	Scythe-blade	Sept. 7, 1858	II.
21438	Nettleton, Stevens, &c. (See Hendrick, Joseph E., assignor.)			
	Nettleton, Willford H. (See Harkness, Hiram W., assignor.)			

21619	Nettleton, Willford H. (See Raymond, Charles, assignor.)	Bread and cracker machine.....	Sept. 28, 1858.....	XVII.
21620	Neuer, George H. (See Regan, Henry W., assignor.)	Oven, baker's.....	Sept. 28, 1858.....	V.
22194	Nevins, W. R., and J. J. Yates.....	Plough, under-drain.....	Dec. 1, 1858.....	IX.
20292	Nevison, J. and E.....	Lath-machines, method of feeding the bolt in.....	May 18, 1858.....	XIV.
	Newark Machine Company. (See How, Frederick W., assignor.)			
21621	Newbrough, John B.....	Adding numbers, machine for.....	Sept. 28, 1858.....	VIII.
19327	Newbury, F. D., assignor to Richard V. De Witt, jr.	Fire-arms.....	Feb. 9, 1858.....	XIX.
19739	Newbury, F. D., assignor to R. V. De Witt, jr.	Fire-arms, revolving.....	March 23, 1858.....	XIX.
20765	Newbury, F. D., assignor to R. V. De Witt, jr.	Fire-arms, revolving.....	June 29, 1858.....	XIX.
204	Newbury, Frederick D.....	Fire-arms, revolving.....	Sept. 28, 1858.....	Add'l imp't.
20890	Newell, George M.....	Hemp-brake.....	July 13, 1858.....	III.
21270	Newell, John W.....	Fabrics, elastic.....	Aug. 24, 1858.....	III.
20891	Newell, W.....	Coffee, apparatus for cleaning and polishing.....	July 13, 1858.....	I.
	New England Pin Company. (See Van Vliet, Cornelius W., assignor)			
	New England Screw Company. (See Kendall & Hunt, assignors)			
20293	Newhall, H. A.....	Cars, railroad, safety attachment for.....	May 18, 1858.....	X.
22131	Newlove, W.....	Gate, farm.....	Nov. 23, 1858.....	IX.
21514	Newman, M.....	Meat cutter.....	Sept. 14, 1858.....	XVII.
19439	Newton, Abner N.....	Sewing-machine.....	Feb. 23, 1858.....	III.
22028	Newton, Daniel.....	Shears for cutting sheet metal.....	Nov. 9, 1858.....	II.
	Newton, G. (See Conklin & Newton.)			
21017	Newton, O.....	Boiler, steam.....	July 27, 1858.....	VI.
	New York Car and Steamboat Gas Company. (See Bidwell S., assignor.)			
19647	Nichols, Alfred E.....	Bobbins, spinning.....	March 16, 1858.....	III.
21080	Nichols, F. B.....	Printing-press.....	Aug. 3, 1858.....	XVIII.
	Nichols, George W. (See Ball, T., assignor.)			
	Nichols, J. R. (See Ingalls & Nichols.)			
	Nicolson, Samuel. (See Gwynne, James S., assignor.)			
21899	Nicolson, Samuel.....	Railways, street rails for.....	Oct. 26, 1858.....	IX.



Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22447	Niles, Peter H	Lathe for turning masts, &c	Dec. 28, 1858	XIV.
19258	Nishwitz, F.	Casting wheels, flasks for	Feb. 2, 1858	II.
19377	Nishwitz, F. (See Hoyt & Nishwitz.)	Harvester	Feb. 16, 1858	I.
20294	Nixon, Martin	Paper pulp, preparation of fibre for	May 18, 1858	III.
19201	Noble, Butler G	Tanning leather	Jan. 26, 1858	XVI.
21844	Noble, James	Iron, rolls for planishing	Oct. 19, 1858	II.
20362	Noble, James M	Bed-bottom	May 25, 1858	XVII.
21572	Noblet, Samuel	Nuts from unscrewing, mode of preventing	Sept. 21, 1858	II.
19867	Noe, J. C. (See Perry, James, assignor.)	Wood, machine for splitting	April 6, 1858	XIV.
21211	Noette, F.	Carpet cleaner	Aug. 17, 1858	XVII.
21622	Noney, A. W	Marble stone, etc., machine for sawing	Sept. 28, 1858	XV.
21693	Norman, James, and Aaron R. McLean	Distillation of fresh water from salt water	Oct. 5, 1858	IV.
20363	Normandy, A	Journal-boxes	May 25, 1858	X.
22195	Norris, J. A.	Auger for wood	Dec. 1, 1858	XIV.
534	Norris, Martin	Locomotive engines, running-gear of	March 2, 1858	Reissue.
22147	Norris, Septimus	Stove, cooking	Nov. 23, 1858	V.
19868	North, Chase, and North. (See Smith & Brown.)	Fire-arms, revolving, removable rammer of	April 6, 1858	XIX.
574	North, Chase, and North. (See Smith & Brown.)	Paper, machine for folding	July 27, 1858	Reissue.
21172	North, Gibson, assignor to North, Chase, and North.	Paper, machine for folding	Aug. 10, 1858	XVIII.
20295	North, Henry S	Apples, device for slicing	May 18, 1858	XVII.
20215	North, John, assignor through mesne assignments to Steuben T. Bacon.	Harvesters, binding device for	May 11, 1858	I.
19945	Norton, H. & J S. B.	Metal beams, connecting rigidly the ends of	April 13, 1858	II.
20002	Notman, George	Mangle, domestic	April 20, 1858	XVII.
20657	Nowlan, Samuel	Ships and other vessels, air-cells for giving buoyancy to.	June 22, 1858	VII.

22448	Nutt, John, <i>et al.</i> (See Miller, W., assignor.)	Railing, iron, construction of.....	Dec.	28, 1858.....	IX.
20168	Nutt, John. (See Miller, W., assignor.)	Screw cutting, chuck for.....	May	4, 1858.....	II.
21144	Nuttall, James.....	Grain, machine for fanning and assorting .....	Aug.	10, 1858.....	XIII.
21236	Nuttall, Richard, and John Kirkpatrick.....	Addometer .....	Aug.	17, 1858.....	VIII.
21977	Nutting, R.....	Refrigerator .....	Nov.	2, 1858.....	XVII.
20506	Nutz, Leonard N., assignor to Irwin B. Randle and Elias Hibbard.....	Altitudes, sun's, heliographic instrument for taking the .....	June	8, 1858.....	VIII.
20505	Nyce, Benjamin M.....	Irregular forms, machine for cutting.....	June	8, 1858.....	XIV.
21694	Oakes, John .....	Steam water-tank.....	Oct.	5, 1858.....	VI.
21355	Oakes, W. N.....	Sewing-machines, hemming-guides for.....	Aug.	31, 1858.....	III.
19895	Obdyke, William. (See Austin, William, assignor.)	Straw-cutter .....	April	6, 1858.....	I.
20270	O'Byrne, James, and S. H. Yokum.....	Cotton, machine for cleaning.....	May	18, 1856.....	III.
19097	Odiorne, Henry B.....	Gins, cotton .....	Jan.	12, 1858.....	III.
19202	Okey, J. B., assignor to himself and W. Y. Wiley.....	Press, cotton.....	Jan.	26, 1858.....	XII.
19709	Oliver, Thomas.....	Bale ties, cotton.....	Mar.	23, 1858.....	XII.
21173	Olmstead, David G.....	Ordinance, compound shell for.....	Oct.	12, 1858.....	XIX.
20296	Olmstead, L. S. (See Mickles & Olmstead.)	Lamp, vapor, burner for.....	May	18, 1858.....	V.
21695	Olmstead, Lorenzo B.....	Apple-paring knife .....	Oct.	5, 1858.....	XVII.
22237	Olmstead, Lucius H. (See Manning, William H., assignor.)	Harvester .....	Dec.	7, 1858.....	I.
19648	O'Neil, John K.....	Pail, milking .....	Mar.	16, 1858.....	XVII.
19259	Oot, Adam .....	Harrow .....	Feb.	2, 1858.....	I.
21439	Opp, Henry.....	Harrows .....	Sept.	7, 1858.....	I.
22238	Oppenheimer, Solomon .....	Nail, wrought, machine .....	Dec.	7, 1858.....	II.
19041	Orange, Samuel J.....	Gin, cotton .....	Jan.	5, 1858.....	III.
20923	Orange, Samuel J., and George Beidelman.....	Grain, machine for cleaning.....	July	13, 1858.....	I.
20578	Orr, Adrian V. B., and Gideon Bantz.....	Vessels, sunken, apparatus for raising.....	June	15, 1858.....	VII.
631	Orr, James F.....	Felting for coats, hats, &c.....	Dec.	1, 1858.....	Reissue.
20216	Orr, H., assignor to William M. Griffith & Co.....	Gin, cotton .....	May	11, 1858.....	III.
21145	Osborn, L. A. (See Mann, R. J., assignor.)	Scales, counter.....	Aug.	10, 1858.....	XII.
19203	Osborn, M.....	Valves, steam throttle.....	Jan.	26, 1858.....	VI.
19440	Osborn, Marmaduke.....	Railroad-track cleaner.....	Feb.	23, 1858.....	IX.
	Osgood, Enoch.....				
	Osgood, H. B.....				
	Osgood, James W.....				
	Osgood, Pelatiah .....				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21774	Ostrander, J., and J. S. Heartt	Bricks, fire, manufacture of	Oct. 12, 1858	XV.
21271	Otis, E. Graves	Oven	Aug. 24, 1858	V.
22132	Oudry, Charles Francis Leopold	Preserving surfaces of cast or wrought iron	Nov. 23, 1858	IV.
21081	Outten, George F.	Whiffletree, safety	Aug. 3, 1858	X.
21440	Owen, Benjamin	Planter, seed	Sept. 7, 1858	I.
20892	Owen, J. E., C. Lane, and E. G. Dyer	Threshing-machine, endless chains for	July 13, 1858	I.
20170	Packard, Reuben	Hoisting-machine	May 4, 1858	XII.
20728	Packer, Henry H.	Drill, hand	June 29, 1858	II.
21696	Page, Charles	Cars and locomotives when without steam, windlass for moving	Oct. 5, 1858	X.
20507	Page, Charles G.	Head-rest, combined umbrella and	June 8, 1858	X.
22239	Page, Clark D.	Kiln, lime	Dec. 7, 1858	XV.
20579	Page, E.	Clothes-frame	June 15, 1858	XVII.
19310	Page, Enos	Churn	Feb. 9, 1858	I.
	Page, John D. (See Woodworth & Page.)			
	Paine, Charles F., deceased, Joseph Eaton, administrator of	Presses, hay	April 22, 1858	Extension.
22219	Paine, Henry M.	Air-engine	Nov. 30, 1858	XI.
21082	Painter, W.	Money table	Aug. 3, 1858	XXII.
21356	Painter, William	Car-seats	Aug. 31, 1858	X.
22029	Palmenbuerg, Joseph R.	Galvano-electric machine	Nov. 9, 1858	VIII.
21775	Palmer, A. (See Hill, Samuel L., assignor.)	Paper-clamps	Oct. 12, 1858	XVIII.
	Palmer, Arnold			
	Palmer, George. (See Keepert & Palmer.)			
	Palmer, George M. (See Suter & Palmer.)			
21176	Palmer, Hiram	Life-preserver	Oct. 12, 1858	VII.
980	Palmer, Peter A.	Stove	Jan. 12, 1858	Design.
21623	Palmer, William	Fire-arm, revolving	Sept. 28, 1858	XIX.
19511	Pardee, John H. (See Hinman, George, assignor.)	Hydrant	Mar. 2, 1858	XI.
20085	Parham, John and Samuel P.	Awning, metal	April 27, 1858	XXII.
20003	Parisen, William O.	Corn-sheller	April 20, 1858	I.
	Parker, E.			

20440	Parker, E	Planter, seed	June 1, 1858	I.
20814	Parker, J. J	Apples, machine for paring, slicing, and coring	July 6, 1858	XVII.
20580	Parker, Joseph	Bedstead, invalid	June 15, 1858	XVII.
19662	Parker, S. A. W., jr. (See Kinsley & Parker.)	Sewing-machine	Mar. 16, 1858	III.
19442	Parker, Sidney, assignor to himself and Leonard Westbrook and Hugh Herringshaw.			
21357	Parkhurst & Byam. (See Byam & Parkhurst.)			
532	Parkhurst, H. A	Harvester	Feb. 23, 1858	I.
20086	Parkhurst, H. C	Gin, cotton	Aug. 31, 1858	III.
	Parkhurst, S. R	Carding-machine	Feb. 23, 1858	Reissue.
	Parkhurst, S. R	Gin, cotton	April 27, 1858	III.
19379	Parkinson, Hardy, & Bates. (See Hardy & Parkinson, assignors.)			
21697	Parks, Nathaniel	Magnet, receiving	Feb. 16, 1858	VIII.
19380	Parmelee, Dubois D	Caoutchouc, tools for manufacturing goods of	Oct. 5, 1858	IV.
21358	Parrish, Stephen E	Car-wheels, railroad	Feb. 16, 1858	X.
	Parson, L. H., and George Houston	Rake, horse	Aug. 31, 1858	I.
20581	Parsons, Henry S. (See Barnes, Stephen, assignor)			
20660	Partridge, W., jr., and G. W. Shaw	Grain, machine for cleaning	June 15, 1858	I.
	Past, J. C	Saw-mills, method of clamping and laterally feeding the log in.	June 22, 1858	XIV.
	Patee, L. (See Morse, J. H., assignor.)			
	Patrick; Robert M. (See Perkins, John M., assignor.)			
19378	Patterson, C. S. (See Shaw, Thomas, assignor.)	Harvesters, raking attachment for	Feb. 16, 1858	I.
21146	Paulus, E	Time-keepers, escapement for	Aug. 10, 1858	VIII.
19710	Pauvert, C	Compounds for hardening iron and steel	Mar. 23, 1858	IV.
19577	Pawling, Joseph H	Snow-plough	Mar. 9, 1858	IX.
21019	Payne, F. C	Mosquito bars, means of adjusting	July 27, 1858	XVII.
21978	Payne, George W. (See Wilson & Payne.)			
22196	Payne, Reuben L	Trap for animals	Nov. 2, 1858	XXII.
21359	Peabody, John F	Railway bars, securing the ends of	Nov. 30, 1858	IX.
	Pearsall, A	Welding bellows pipe	Aug. 31, 1858	II.
	Pearson, Hiram E. (See Batchelder, Asahel G., assignor.)			
19204	Pearson, John	Car-coupling, railroad	Jan. 26, 1858	X.
21900	Pearson, John, jr	Stove, cooking	Oct. 26, 1858	V.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20893	Pease, H. (See Seymour & Pease.)	Knit gloves, manufacturing.....	July 13, 1858.....	III.
21624	Peatfield, J. ....	Car-springs, India rubber .....	Sept. 28, 1858.....	X.
22197	Peatfield, S. ....	Skirts, ladies' hoop .....	Nov. 30, 1858.....	XXI.
19311	Peberdy, Samuel .....	Cotton-fields, machine for cutting brush from.....	Feb. 9, 1858.....	I.
19472	Peck, Elias. ....	Clock-movements, lathe for cutting tenons for.....	Feb. 23, 1858.....	VIII.
	Peck, Russel, assignor to himself and G. H. Wooster.			
22375	Peckham, John.....	Shirts, draughting.....	Dec. 21, 1858.....	XVII.
	Peckover, J. (See Adams & Peckover.)			
22449	Pefley, Jacob.....	Lathe-machine .....	Dec. 28, 1858.....	XIV.
19581	Peirce, William .....	Pump, rotary.....	Mar. 9, 1858.....	XI.
19869	Pelletreau, Jesse W.....	Planting potatoes, machine for .....	April 6, 1858.....	I.
21588	Pemberton, Lemuel, administrator of John Pemberton, deceased.	Saw-mill .....	Sept. 21, 1858.....	XIV.
21360	Penniston, George W.....	Bales, &c., cotton, machine for tightening and securing metallic bands for.	Aug. 31, 1858.....	XII.
20021	Pepper, Calvin, assignor to Nelson R. Scovel.....	Cars, railroad, method of ventilating.....	April 20, 1858.....	X.
22331	Pepper, Calvin, assignor to himself and John G. Treadwell.	Gas for heating and illuminating purposes, method of applying.	Dec. 14, 1858.....	V.
21361	Pepper, T. W. ....	Sewing-machines, oiling the threads for.....	Aug. 31, 1858.....	III.
19151	Perham, David.....	Cranberry separator.....	Jan. 19, 1858.....	I.
19099	Perin, Ezra and John Z. ....	Sawing cross-cut, horse-power machine for .....	Jan. 12, 1858.....	XIV.
20441	Perkins, C. H. ....	Horse-shoes, machine for making .....	June 1, 1858.....	II.
19533	Perkins, John M., assignor to Robert M. Patrick.....	Lock .....	Mar. 2, 1858.....	II.
19098	Perkins, Nahum S. C. ....	Engines, steam, arrangement for.....	Jan. 12, 1858.....	VI.
	Perkins, Lazell, & Co. (See Ferguson, James, assignor.)			
19791	Perkins, S. R. (See German & Perkins.)	Desk-seats for schools.....	Mar. 30, 1858.....	XXII.
21979	Perley, Charles.....	Boat-davits, tripping block for .....	Nov. 2, 1858.....	VII.
20159	Perrine, William C .....	Meters, fluid.....	May 4, 1858.....	XI.
	Perry, A. G. (See Smith & Perry.)			

20582	Perry, C. P.	Straw-cutter	June	15, 1858	I.
19946	Perry, David	Skirts, cords for	April	13, 1858	XXI.
20955	Perry, E. H.	Chain, machine for making	July	20, 1858	II.
21362	Perry, Edwin H.	Chain, machine for making	Aug.	31, 1858	II.
22266	Perry, Horatio O., assignor to himself and Sidney Sheppard.	Propellers, means of securing the arms to the hub of.	Dec.	7, 1858	VII.
20815	Perry, J. G.	Sausage-filler	July	6, 1858	XVII.
19610	Perry, James, and E. Fitzgerald, assignors to James Perry, Daniel Fitzgerald, and Horatio Bogert.	Dough, raising	Mar.	9, 1858	XVII.
22148	Perry, James, assignor to J. C. Not	Sewing-machine	Nov.	23, 1858	III.
19441	Perry, Philander	Mill, grain	Feb.	23, 1858	XIII.
21901	Perry, Philander	Car-coupling, railroad	Oct.	26, 1858	X.
20658	Perry, S.	Lock, combination	June	22, 1858	II.
19100	Peter, Lewis	Engine, rotary steam	Jan.	12, 1858	VI.
21845	Petersen, Charles J. C.	Coffee-roasters	Oct.	19, 1858	XVII.
22303	Petersen, Charles J. C.	Boiler, steam	Dec.	14, 1858	VI.
21363	Petersen, Charles J. C.	Corn-husker	Aug.	31, 1858	I.
22198	Petersen, Charles J. C.	Valve-gear of locomotive engines	Nov.	30, 1858	VI.
22199	Pettee, S. E.	Bag machines, &c., pasting apparatus for	Nov.	1, 1858	XVIII.
20217	Pettee, S. E., and E. G. Cobb	Stamp, hand, self-inking	May	11, 1858	XVIII.
21147	Pettet, W.	Oven, bake	Aug.	10, 1858	V.
19101	Phelan, Michael, assignor to H. W. Collender	Billiard tables, cushions for	Jan.	12, 1858	XXII.
20087	Phelps, Pittock, & Richmond. (See Pittock, Richmond, & Phelps.)	Envelopes for letters, &c.	April	27, 1858	XVIII.
22030	Phelps, Charles	Bee-hive	Nov.	9, 1858	I.
19042	Phelps, Ebenezer W.	Electro-magnetic speed-governor	Jan.	6, 1858	VIII.
21980	Phelps, George M.	Printing-press, hand	Nov.	2, 1858	XVIII.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20297	Phelps, L. B.-----	Planters, corn.-----	May 18, 1858.-----	I.
20393	Philbrick, David, assignor to himself and Elmer Townsend. Phillips, J. (See Dewey & Phillips.) Phillips, John. (See Cannon, Francis A., assignor.)	Last-holder, rotary -----	May 25, 1858.-----	XVI.
19649	Phillips, Nathan M.-----	Bedstead, spring.-----	Mar. 16, 1858.-----	XVII.
20298	Phillips, Nathan M.-----	Lathe-dog -----	May 18, 1858.-----	XIV.
19512	Picket, Warner, and Andrew Hills -----	Corn-husker -----	Mar. 2, 1858.-----	I.
20364	Pierce, D.-----	Clothes-pin -----	May 25, 1858.-----	XVII.
22133	Pierce, George V. and Edwin A.----- Pierce, George W. (See Fuller & Pierce.)	Bustles for ladies' dresses.-----	Nov. 23, 1858.-----	XXI.
22450	Pilgrim, James.-----	Cores for moulding plastic substance -----	Dec. 28, 1858.-----	XV.
21515	Pilson, R.-----	Looms, temples for -----	Sept. 14, 1858.-----	III.
584	Pirson, Joseph P.-----	Engines, steam, surface-condensers for -----	Aug. 10, 1858.-----	Reissue.
20128	Pitcher, Benjamin, assignor to himself, William Tobey, and John Anderson. Pitkin & Wiard. (See Wiard, Thomas, assignor.) Pittock, G. W. (See Richmond & Pittock, assignors)	Bending mould-boards for ploughs -----	April 27, 1858.-----	II.
996	Pittock, G. W., G. G. Richmond, and C. Phelps, assignors to themselves and J. Lown.	Stoves, cooks' -----	April 6, 1858.-----	Design.
21272	Plant, Increase C.-----	Bales, &c., metallic bands or ties for -----	Aug. 24, 1858.-----	XII.
21724	Plant, John, assignor to himself and George H. Plant.	Furnace for heating buildings -----	Oct. 5, 1858.-----	V.
19896	Plant, P. (See Ford & Plant.)	Lamp.-----	April 6, 1858.-----	V.
21902	Plant, P., assignor to himself and P. Hannay -----	Press, copying -----	Oct. 26, 1858.-----	XVIII.
20659	Platt, Edwin and Jacob B.-----	Plough.-----	June 22, 1858.-----	I.
21083	Platt, Henry M.-----	Carriage-wheels, hubs for -----	Aug. 3, 1858.-----	X.
590	Platt, N., assignor to W. H. Seymour and D. S. Morgan.	Harvester -----	Aug. 31, 1858.-----	Reissue.

591	Platt, N., assignor to W. H. Seymour and D. S. Morgan.	Harvester	Aug.	31, 1858	Division of reissue.
592	Platt, N., assignor to W. H. Seymour and D. S. Morgan.	Harvester	Aug.	31, 1858	Division of reissue.
593	Platt, N., a signor to W. H. Seymour and D. S. Morgan.	Harvester	Aug.	31, 1858	Division of reissue.
22031	Plinta, Augustus	Railway bars, joints for securing the ends of	Nov.	9, 1858	IX.
22376	Plinta, Augustus	Railroad rails	Dec.	21, 1858	IX.
20816	Plonk, Levi	Collars, horse, machine for stuffing	July	6, 1858	XVI.
19711	Plumb, Hiram	Turning tool-handles, etc., machine for	Mar.	23, 1858	XIV.
21020	Plummer, J. T. (See Kennedy & Plummer.)				
	Pohle, C. R. M.	Time, combination of the needle and sun-dial to ascertain.	July	27, 1858	VIII.
21021	Pole, Joseph W	Locomotive-engines, grates for	July	27, 1858	VI.
22451	Pollard, Ezra	Clothes, pestle for cleansing	Dec.	28, 1858	XVII.
19205	Pollard, Horatio	Heel-spur to prevent slipping on ice	Jan.	26, 1858	XXII.
20171	Pomeroy, C. S. (See Behrens, H. J., assignor)				
21903	Pomroy, C	Pipe, cast-iron	May	4, 1858	II.
20924	Pond, Joseph F	Washing-machine	Oct.	26, 1858	XVII.
	Poole, R, assignor to himself and German H. Hunt.	Car-wheels, cooling	July	13, 1858	X.
20022	Poole, Robert, assignor to Robert Poole and German H. Hunt.	Casting car-wheels	April	20, 1858	II.
21625	Poole, T. W	Cultivator	Sept.	28, 1858	I.
566	Pope, A. R	Electro-magnetic alarms	June	8, 1858	Reissue.
20299	Poppenhusen, C	Whalebone, manufacture of artificial	May	18, 1858	XXII.
20894	Porter, C. T.	Engines, steam, governor for	July	13, 1858	VI.
22377	Porter, David D.	Gun-carriages, quoins for	Dec.	21, 1858	XIX.
21626	Porter, Emma T.	Clothes-dryer	Sept.	28, 1858	XVII.
19152	Porter, Luther E	Seaming-machine, double	Jan.	19, 1858	II.
22200	Porter, Rufus	Engine, steam	Nov.	30, 1858	VI.
	Post & Burridge. (See Burridge & Post.)				
22442	Postley, Charles A	Bustle	Dec.	7, 1858	XXI.
	Potter & Bodine. (See Borden, J., assignor.)				
	Potter & Co. (See Vedder & Sanderson, assignors)				
	Potter & Co. (See Vedder & Ripley.)				
	Potter, Grover, & Baker. (See Blodgett, S. C., assignor.)				
19870	Potter, H. H.	Sawing-machine, cross-cut	April	6, 1858	XIV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22304	Potter, Henry H.	Carriage-seats, adjustable	Dec. 14, 1858	IX.
19260	Potter, Louis. (See Vedder & Ripley, assignors)	Car-brake, railroad	Feb. 2, 1858	X.
22267	Potter, Nathaniel	Gas meters, valves for	Dec. 7, 1858	IV.
19578	Potter, Robert M.	Letter-boxes to lamp-posts, mode of attaching metallic.	Mar. 9, 1858	XXII.
22088	Potts, Albert	Vessels, centre-board for	Nov. 16, 1858	VII.
19513	Potts, Jesse F.	Hydrant	Mar. 2, 1858	XI.
21022	Powell, James. (See Robbins & Powell, assignors.)	Gas-regulator	July 27, 1858	IV.
20366	Powers, J. H.	Seeding-machine	May 25, 1858	I.
21148	Pratt, A. M.	Bridges, truss-frames for	Mar. 29, 1858	Extension.
20365	Pratt, Caleb, and T. Willis Pratt	Printing-ink rollers	Aug. 10, 1858	XVIII.
20530	Pratt, E.	Washing-machine	May 25, 1858	XVII.
	Pratt, F. B., and T. Tylee	Table, extension	June 8, 1858	XVII.
	Pratt, George, assignor to J. A. Ellis and J. E. Hazelton.	Sewing-machines, tables for	Feb. 16, 1858	Design.
989	Pratt S. F.	Sewing-machines	Dec. 7, 1858	III.
22240	Pratt, Samuel F.	Cleansing woollens, solutions for	June 22, 1858	IV.
20661	Prentiss, E. F.	Gin feeder, cotton	Nov. 30, 1858	Add'l imp t.
210	Prescott, Jedediah	Measuring and recording by the tape, method of	Dec. 7, 1858	VIII.
	Prescott, W. P. (See Miller, W., assignor.)	Process of extracting fat oils from seeds	April 13, 1858	IV.
22241	Preston, E. A.	Pumps	Nov. 30, 1858	XI.
19948	Preston, John	Carding-machine	Aug. 31, 1858	III.
22201	Preston, O. W., jr.,	Wheels of steam-vehicles, ploughs, &c., driving, giving adhesion to.	April 13, 1858	X.
21364	Price, C. E., & J. Haythorn.	Roofing-cement, composition for	Mar. 23, 1858	IX.
19947	Price, John T.	Fire-arm, repeating	Aug. 10, 1858	XIX.
	Prime, Bradley, L.	Drill, grain	Aug. 17, 1858	I.
19712	Prindle, F. B.	Coal-ashes, &c., apparatus for sifting	June 22, 1858	V.
21149	Pritz, Adam			
21212	Proctor, H. M. (See Bancroft, N. W., assignor.)			
20662	Proctor, L. H.			

20508	Prosser, Thomas	Bee-hive	June 8, 1858	I.
22149	Puffer, Milton G., assignor to Cyrus White and Lewis A. Corbin.	Envelopes, machine for making	Nov. 23, 1858	XVIII.
20583	Pugh, John	Car-wheels	June 15, 1858	X.
20367	Pullman, N	Switch, railroad	May 25, 1858	IX.
19261	Purchase, Thomas E	Bars, making railway	Feb. 2, 1858	II.
	Purdy, Albert G. (See Holmes, Alexander M., assignor.)			
20004	Pusey, L	Car-wheels, railroad, securing tires to	April 20, 1858	X.
20368	Pusey, L	Horse-power, governor for	May 25, 1858	XIII.
20442	Putnam, S. S.	Pump	June 1, 1858	XI.
21213	Putnam, S. S	Nails, machine for forging	Aug. 17, 1858	II.
21636	Pye, Thomas L	Lock	Sept. 28, 1858	II.
22202	Quackenbush, Cornelius	Fences, field, brace-post for	Nov. 30, 1858	IX.
20817	Quackenbush, J. H	Car coupling, railroad	July 6, 1858	X.
	Quigley, J. (See Clare & Quigley.)			
20088	Quigley, M	Table, convertible extension	April 27, 1858	XVII.
20369	Quimby, A	Washing-machine	May 25, 1858	XVII.
19713	Quimby, David S	Stove-heating apparatus	Mar. 23, 1858	V.
	Quimby, E. M. (See Crossman & Quimby.)			
20443	Quinn, E	Pump-buckets	June 1, 1858	XI.
19206	Race, W., and S. R. C. Mathews	Hydrant	Jan. 26, 1858	XI.
20729	Racey, W. H	Lamp, vapor	June 29, 1858	V.
21627	Racey, W. H	Lamp	Sept. 28, 1858	V.
20818	Racine, L	Mill-stones, ventilating	July 6, 1858	XIII.
21698	Raezer, Mathias	Rake, hay	Oct. 5, 1858	I.
20509	Rarford, Philip H	Press, ratchet	June 8, 1858	XII.
21084	Ralston, A	Stove	Aug. 3, 1858	V.
21575	Ralston, Andrew	Churn	Sept. 21, 1858	I.
19262	Ramage, Joseph O	Plough	Feb. 2, 1858	I.
19949	Rand, A. C., and R. R. Johnson	Fog-bells	April 13, 1858	VII.
	Rand, Jacob B. (See Huntoon, Reuben K , assignor.)			
1057	Randall, A. C	Lockets	Oct. 19, 1858	Design.
21053	Randall, G. W., assignor to R. J. Todd	Lamp, vapor, burner for	July 27, 1858	V.
19381	Randall, H. H	Press, cotton	Feb. 16, 1858	XII.
	Randle, Irwin B. (See Nutz, L. N., assignor.)			
20370	Rands, C	Mill, flouring	May 25, 1858	XIII.
19792	Ransom, J. L	Brick-machine	Mar. 30, 1858	XV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20089	Rarey, G. S.	Churn	April 27, 1858	I.
19650	Rathbone & Co. (See Gibbs, S. W.)	Stove, cooking	Mar. 16, 1858	V.
19651	Raub, Christian, (A)	Stove, cooking	Mar. 16, 1858	V.
20584	Raub, Christian, (B)	Gas-burners	June 15, 1858	V.
22452	Ray, Amos H.	Burnishing attachment for lathes	Dec. 28, 1858	II.
22220	Ray, James S.	Sewing-machine	Nov. 30, 1858	III.
19612	Raymond, C., assignor to W. H. Nettleton	Sewing-machine	Mar. 9, 1858	III.
21054	Raymond, Charles, assignor to Willford H. Nettleton.	Fire-arm, revolving	July 27, 1858	XIX.
21778	Raymond, E. A., and C. Robitaille, assignors to themselves, J. B. Richards, and T. K. Austin.	Compositions used as building materials	Oct. 12, 1858	IV.
20683	Raymond, N. C.	Stuffing boxes	June 22, 1858	XIII.
22032	Read, H. F., assignor to himself and Samuel J. Burr.	Harvester	Nov. 9, 1858	I.
1017	Read, Hosea W.	Stove	June 29, 1858	Design.
21516	Read, J. A., assignor to D. Stuart and J. Peterson.	Harvester, corn	Sept. 14, 1858	I.
21846	Read, J. M. (See Copeland, Josiah.)	Plough	Oct. 19, 1858	I.
19579	Reamer, Isaac, and Henry Miller	Planter, seed	March 9, 1858	I.
22378	Reaney, William	Levelling instruments, self-adjustable	Dec. 21, 1858	VIII.
20585	Redhead, Joseph	Sheep while being sheared, device for holding	June 15, 1858	I.
22305	Reed, D. R., and J. E. Chapman	Time-pieces, escapement for	Dec. 14, 1858	VIII.
981	Reed, George P.	Tea-service	Jan. 12, 1858	Design.
20819	Reed, Henry G., assignor to himself and Charles E. Burton.	Leathering tacks, machine for	July 6, 1858	XVI.
22453	Reed, J.	Steering-apparatus	Dec. 28, 1858	VII.
21023	Reed, Jesse	Compounds for treating potato-rot	July 27, 1858	IV.
20300	Reed, Lyman	Ploughs, apparatus for clearing the coulter of	May 18, 1858	I.
21150	Reeder, A.	Hay-elevator	Aug. 10, 1858	I.
21725	Rees, E. M.	Barrels, machine for forming	Oct. 5, 1858	XIV.
21847	Rees, Jacob, assignor to Jonah L. Rees.	Harvesters, raking attachment to	Oct. 19, 1858	I.
	Reese, Adam R.			

21024	Reeve, T. and J., and S. M. Tyler.....	Telegraph machines, printing, mode of operating the mechanism of.....	July	27, 1858.....	VIII.
577	Reeves, Israel S., assignor to J. B. Slawson.....	Omnibus fare-box.....	Aug.	3, 1858.....	Reissue.
19471	Reeves, Israel S., assignor to J. B. Slawson.....	Omnibus fare-box.....	Feb.	23, 1858.....	X.
19043	Reeves, J. (See Hidden & Reeves.).....				
19043	Reeves, John.....	Ships, construction of.....	Jan.	5, 1858.....	VII.
21801	Regan, Henry W., assignor to himself and George H. Neuer.....	Pump.....	Oct.	12, 1858.....	XI.
20895	Rehahn, H. ....	Refrigerator.....	July	13, 1858.....	XVII.
22089	Rehn, Isaac.....	Melodeons, &c.....	Nov.	16, 1858.....	XVIII.
22033	Reichhold, Frederick.....	Umbrellas and parasols, frames for.....	Nov.	9, 1858.....	XXI.
21576	Reichmann, C.....	Lamp.....	Sept.	21, 1858.....	V.
20371	Reid, Daniel.....	Distilling spirits of turpentine, apparatus for.....	May	25, 1858.....	IV.
19207	Reighard, Jacob H.....	Lantern.....	Jan.	26, 1858.....	V.
19897	Reighard, Jacob H., assignor to himself, John Bird, and David Challiner.....	Lantern.....	April	6, 1858.....	V.
19580	Reimann, H.....	Cigar-lighting cinders, apparatus for containing and igniting.....	March	9, 1858.....	XXII.
19717	Reimann, Heinrich.....	Cigar-lighting cinders.....	March	23, 1858.....	XXII.
21442	Reinert, W. S.....	Kneading-machine.....	Sept.	7, 1858.....	XVII.
20956	Rennie, A.....	Lathes, turning, method of feeding tool-carriage in.....	July	20, 1858.....	XIV.
21085	Resor, William.....	Broiling-furnace and cooking-range combined.....	Aug.	3, 1858.....	V.
203	Reuthe, F.....	Trap for animals.....	July	6, 1858.....	Ad'l imp't.
21302	Reuthe, Frederick, assignor to Moritz Loth.....	Trap for animals.....	Aug.	24, 1858.....	XXII.
1062	Reynolds, Edward, assignor to Thomas W. Brown.....	Stands, hat and cane.....	Nov.	16, 1858.....	Design.
20957	Reynolds, George.....	Axe-polls, machine for making.....	July	20, 1858.....	II.
20444	Reynolds, H. H.....	Truss-pads.....	June	1, 1858.....	XX.
21365	Reynolds, Joseph.....	Carpet-fastener.....	Aug.	31, 1858.....	XVII.
19793	Reynolds, O. L.....	Sewing-machine.....	March	30, 1858.....	III.
21214	Reynolds, Samuel D.....	Threshing-machine.....	Aug.	17, 1858.....	I.
20090	Reynolds, T. S.....	Printing-press.....	April	27, 1858.....	XVIII.
22454	Reynolds, Uel J.....	Trace-fastening.....	Dec.	28, 1858.....	XVI.
	Rhodes, I'rake, and Collins (See Collins, J. J. G., assignor.).....				
	Rhodes, John. (See Brown, Cyriel E., assignor.).....				
	Rhodes, S. (See Clime, J. C., assignor.).....				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19153	Riatti, Vincent. (See Corbelli & Riatti.)	Pendulum, compound.....	Jan. 19, 1858.....	VIII.
22379	Rice, Charles W., and John E. Harrington Rice, D. H. (See Knight & Rice.) Rice, George F..... Rice, John. (See Wood, William W. W., assignor.)	Boring wood, machine for.....	Dec. 21, 1858.....	XIV.
19794	Rice, John W.....	Car-coupling, railroad.....	March 30, 1858.....	X.
21086	Rice, John W.....	Cars, brakes for railroad.....	Aug. 3, 1858.....	X.
22455	Rice, John W.....	Car-brakes, railroad.....	Dec. 28, 1858.....	X.
20820	Rice, Luther O.....	Carriage-springs, attaching.....	July 6, 1858.....	X.
22102	Rice, V. M. (See Buel & Barnes) Rice, V. M. (See Sangster, A. W.) Rich, Isaac, assignor to S. C. Arnold.....	Boot and shoe soles, instrument for trimming the edges of.	Nov. 16, 1858.....	XVI.
20372	Richard, A. C.....	Jack, lifting.....	May 25, 1858.....	XII.
19044	Richard, Albert C.....	Lanterns, attachment for lighting.....	Jan. 5, 1858.....	V.
21517	Richard, Albert C.....	Bale hoops, cotton, clasps for.....	Sept. 14, 1858.....	XI.
21848	Richard, Albert C.....	Bands, clasps for metallic or other flexible.....	Oct. 7 19, 1858.....	XII.
22243	Richards, Henry E..... Richards, J. B. (See Raimond & Robitaille, assignors.)	Furniture-casters, device for supporting.....	Dec. 7, 1858.....	XVII.
19950	Richards, Samuel.....	Snow-plough.....	April 13, 1858.....	IX.
19443	Richards, Thomas.....	Valve, rotary.....	Feb. 23, 1858.....	VI.
20925	Richardson, Alpha, deceased, Hubbard, Harris, administrator of. Richardson, B., assignor to himself and the Hayden Manufacturing Company. Richardson, George F. (See Lombard, Daniel, assignor.)	Leather, machinery for splitting strips or pieces of Thread, machinery for polishing.....	April 17, 1858..... July 13, 1858.....	Extension. III.
1048	Richardson, Nathaniel P..... Richardson, Nathaniel T., & Co. (See Stevens, William W., assignor.) Richardson, S. (See Robins, Jabez, assignor.)	Stove.....	Sept. 7, 1858.....	Design.

21518	Richmond, A Richmond, G. G. (See Pittock, Richmond, & Phelps.)	Stoves, cooking	Sept.	14, 1858	V.
20682	Richmond, G. G., and G. W. Pittock, assigns to themselves, C. Phelps, and J. Lown; and Pittock assigns his interest to D. B. Carver.	Stoves, cooking	June	22, 1858	V.
21152	Richmond, T. R.	Seeding-machine	Aug.	10, 1858	I.
21443	Rickart, Alexander	Turning hubs, machine for	Sept.	7, 1858	XIV.
21928	Rider, Caleb, assignor to George T. McLauthlin.	Water-motor	Oct.	26, 1858	XI.
21215	Rider, J.	Fire-arm, revolving	Aug.	17, 1858	XIX.
20978	Rider, W., assignor to himself and J. B. Sweetland.	Horse-power.	July	20, 1858	XIII.
21303	Ridley, Henry, assignor to S. P. Thatcher and Walter Stillman.	Carpet-stretcher	Aug.	24, 1858	XVII.
21151	Rieseck, G.	Valve, steam	Aug.	10, 1858	VI.
21087	Riggs, Joseph H.	Yokes, ox	Aug.	3, 1858	I.
19263	Riker, William	Winch, safety	Feb.	2, 1858	XII.
20091	Riley, William	Trap, fly	April	27, 1858	XXII.
20373	Rimington, George	Lamp for burning coal-oil, &c.	May	25, 1858	V.
19514	Ring, Aaron	Seeding-machine	Mar.	2, 1858	I.
19872	Ripley, Ezra. (See Vedder & Ripley, assignors.)	Seeding-machine	April	6, 1858	I.
19716	Risher, T. A.	Harvester, corn	Mar.	23, 1858	I.
19871	Risher, Thomas A	Seeding-machine	April	6, 1858	I.
19652	Rixford, Nathan. (See Dimock & Rixford.)	Plough, gang	Mar.	16, 1858	I.
19653	Roach, Lewis	Washing-machine	Mar.	16, 1858	XVII.
19449	Robb, James	Bedstead, wardrobe	Feb.	23, 1858	XVII.
21849	Robbins, Chandler	Alarm, burglars'	Oct.	19, 1858	XXII.
525	Robbins, Henry R	Planter, corn	Feb.	9, 1858	Reissue.
21699	Robbins, Martin, and John L. Frishie.	Indicator, water, for steam boilers	Oct.	5, 1858	VI.
22402	Robbins, Martin, and James Powell, assignors to James Powell.	Faucet	Dec.	21, 1858	XI.
20303	Roberts, A. J	Street sweeping machine	May	18, 1858	XXII.
19447	Roberts, Charles	Harvester	Feb.	23, 1858	I.
21275	Roberts, Cyrus. (See Bunsen & Roberts.)	Stand, ice	Aug.	24, 1858	XVII.
21274	Roberts, H. A.	Packages for dry goods	Aug.	24, 1858	XXII.
560	Robertson, J. E. (See Wood, Roberts, & Hubbell.)	Sewing-machine	May	18, 1858	Reissue.
	Robertson, A				
	Robertson, T. J. W				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
599	Robertson, T. J. W.	Sewing-machine.	Sept. 14, 1858.	Reissue.
22090	Robie, Harry, and Royal V.	Churn	Nov. 16, 1858.	I.
21577	Robins, Jabez	Harrow, rotary	Sept. 21, 1858.	I.
19281	Robins, Jabez, assignor to himself, Daniel K. Haines, and S. Richardson.	Harrow	Feb. 2, 1858.	I.
19582	Robinson, Charles	Chairs, sofas, etc, spring seats of	Mar. 9, 1858.	XVII.
20092	Robinson, Charles	Bedstead, rail	April 27, 1858.	XVII.
20093	Robinson, Charles. (See Thayer, C. B., assignor.) Robinson, Charles E., and L. D. Sanborn Robinson, Chester G. (See Cradit, Nathaniel, assignor.)	Leather from vats, apparatus for raising	April 27, 1858.	XVI.
21367	Robinson, F. W.	Threshing-machines, straw carriers of	Aug. 31, 1858.	I.
21628	Robinson, F. W.	Threshing-machine, riddles for	Sept. 28, 1858.	I.
21366	Robinson, J. R. and H. S.	Valve-cocks	Aug. 31, 1858.	VI.
20301	Robinson, L.	Seeding-machine	May 18, 1858.	I.
22456	Robinson, Oliver	Bedstead fastening	Dec. 28, 1858.	XVII.
19444	Robinson, William	Stave-machine	Feb. 23, 1858.	XIV.
20005	Robison, L. S.	Fence, field, portable	April 20, 1858.	IX.
19312	Robitaille, C. (See Raymond & Robitaille)	Organs, &c., pedals for	Feb. 9, 1858.	XVIII.
19313	Robjohn, Thomas	Pipe, lead, machine	Feb. 9, 1858.	II.
21700	Rockwell, Charles E. Rockwell, L. A. (See Schuyler & Rockwell.) Rockwell, R. D. (See Buell & Barnes, assignors) Rockwell, Sidney S. Rockwood, Aaron W. (See Barden, John S., assignor.)	Grafts, root, machine for cutting	Oct. 5, 1858.	I.
19446	Rodgers, James	Carriages, &c., boxes for receiving money in	Feb. 23, 1858.	X.
20663	Roe, Henry A.	Cheese-vat	June 22, 1858.	XVII.
20302	Roester, A., and Charles Frey	Lanterns, self-lighting and extinguishing	May 18, 1858.	V.
19951	Rogers, B. A.	Carriage-wheels, tightening the spokes and fellies of.	April 13, 1858.	X.

21444	Rogers Brothers' Manufacturing Co. (See Leonard, Allen, assignor)	Billiard-balls	Sept.	7, 1858	XXII.
19584	Rogers, C. B. and J. and M. C.	Cultivator	Mar.	9, 1858	I.
21904	Rogers, D. B. S. and L.	Pump, mode of operating	Oct.	26, 1858	XI.
19448	Rogers, Daniel J.	Car-springs, railroad	Feb.	23, 1858	X.
21905	Rogers, David B.	Lightning-rods, method of insulating and supporting.	Oct.	26, 1858	VIII.
19264	Rogers, E. C.	Carriages, adjustable axle-brace for	Feb.	2, 1858	X.
21368	Rogers, F. O.	Shutter-operator	Aug.	31, 1858	II.
21398	Rogers, George. (See Moorewood & Rogers.)	Sewing-machines, regulating the tension of the thread in.	Aug.	31, 1858	III.
22306	Rogers, John T. B., assignor to George B. Sloat	Steam-generator	Dec.	14, 1858	VI.
19445	Rogers, Robert E.	Car-wheels, railroad	Feb.	23, 1858	X.
19715	Rogers, Robert S. (See Flint & Rogers)	Engines, steam, revolving cylinder	Mar.	23, 1858	VI.
20244	Rogers, Seymour	Washing-machine	May	11, 1858	XVII.
19102	Rogers, Thomas				
20510	Rohr, D. E., assignor to himself and Thomas W. Davis.	Carriage-springs, equalizing	Jan.	12, 1858	X.
21369	Roland, Isaac F. (See Kraatz, David K., assignor)	Springs, volute	Feb.	23, 1858	X.
22034	Rollin, Daniel G.	Fire-arms, continuous priming for	April	27, 1858	XIX.
21370	Rollin, Daniel G., assignor to George G. Martin	Washing-machine	Aug.	17, 1858	XVII.
21850	Rood, D. C.	Boots and shoes, revolving heels for	June	8, 1858	XVI.
20730	Roome, J. H.	Shears	Aug.	31, 1858	XXI.
20896	Roome, J. H.	Forging metals, drop for	Nov.	9, 1858	II.
19583	Root, E. K.	Fastener, window	Aug.	31, 1858	II.
21217	Root, J.	Seeding-machine	Oct.	19, 1858	I.
20664	Root, M. S.	Churn	June	29, 1858	I.
19714	Rose, A.	Medicated vapor apparatus	July	13, 1858	XX.
19874	Rose, A. F.	Leather, enameling	Mar.	9, 1858	XVI.
20665	Rose, John	Planter, seed	Aug.	17, 1858	I.
21276	Rose, Jonathan H.	Sewing-machines, cabinet for	June	22, 1858	III.
	Ross, F. A., and W. H. Marshall	Press, cotton	Mar.	23, 1858	XII.
	Ross, Hiram	Planters, cotton-seed	April	6, 1858	I.
	Ross, James				
	Ross, James M. (See Buckley, H. C., assignor.)				
	Ross, R., and W. Holland	Machinery, oil-cup for	June	22, 1858	XII.
	Ross, R., and W. Holland	Steam-cock	Aug.	24, 1858	VI.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19045	Ross, Richard M. (See Faust, John F., assignor.)	Paper, machinery for manufacturing-----	Jan. 5, 1858-----	III.
19515	Rossmann, Stephen	Sugar-kettles, method of setting.-----	Mar. 2, 1858-----	IV.
21153	Roth, Honore			
19817	Rothermel, Lewis. (See Martin, James W., assignor)			
22403	Routh, J., and A. Vaughn	Harrow-----	Aug. 10, 1858-----	I.
19873	Rowe, John L., assignor to Frederick Stevens	Plumb and level indicator, attaching the plumb-line to a-----	Mar. 30, 1858-----	VIII.
21701	Rowe, John L., assignor to F. Stevens	Ice-pick-----	Dec. 21, 1858-----	XXII.
21851	Rowell, B.	Fence, field-----	April 6, 1858-----	IX.
20731	Rowell, Stephen P.	Carpet-sweeper-----	Oct. 5, 1858-----	XVII.
	Rowland, E. C.	Gates, farm, method of opening and closing by approaching vehicles.	Oct. 19, 1858-----	IX.
	Rowland, Robert	White-lead, apparatus for manufacturing-----	June 29, 1858-----	IV.
22457	Rowland, Samuel. (See Barnes, Stephen, assignor.)			
22307	Rowland, Thomas F. (See Henwood & Stephens, assignors)			
	Rowlands, Henry R.	Water, apparatus for walking on the-----	Dec. 28, 1858-----	VII.
	Roy, F.	Sugar-juices, furnaces for evaporating-----	Dec. 14, 1858-----	IV.
20732	Ruckman, J. A. (See Gibbs, James E. A., assignor.)			
20445	Rude, P. C.	Washing-machine-----	June 29, 1858-----	XVII.
519	Rudisill, A.	Smoothing-iron-----	June 1, 1858-----	XVII.
19046	Ruggles, Stephen P.	Printing-press-----	Jan. 19, 1858-----	Reissue.
20304	Ruggles, Stephen P.	Bank-notes, &c., shears for cutting-----	Jan. 5, 1858-----	XVIII.
	Ruggles, W. G.	Baking and cooking, apparatus for-----	May 18, 1858-----	V.
20666	Rulph, Charles E. (See Albrecht, Joseph, assignor.)			
20821	Russ, H. P.	Ore-separator-----	June 22, 1858-----	II.
19952	Russell, Charles L.	Leathering tacks, machine for-----	July 6, 1858-----	XVI.
21519	Russell, E. P.	Straw-cutter-----	April 13, 1858-----	I.
	Russell, F.	Bed-bottom-----	Sept. 14, 1858-----	XVII.
21777	Russell, Fisk	Mowing-machine-----	Oct. 12, 1858-----	I.

22308	Russell, George D., Samuel H., and Charles L.	Skirts, hoops, forceps for fastening clasps in	Dec.	14, 1858	XXI.
1036	Russell, Henry E.	Door-lock plates	Aug.	10, 1858	Design.
	Russell, Isaac D., and Cornelia Waterman, ad- ministratrix of Stephen Waterman, deceased.	Ships' blocks	Jan.	30, 1858	Extension.
20586	Russell, J., and J. Lantz. (See Lantz & Russell.)	Carriage-wheels, metallic hubs for	June	15, 1858	X.
21779	Russell, S. J.	Horse-shoe machine	Oct.	12, 1858	II.
19953	Russell, T. H., and Amos Morrill	Planters, seed	April	13, 1858	I.
21852	Russell, Thomas	Submarine explorer	Oct.	19, 1858	VII.
	Ryerson, V. B.	Bed-bottom, spring	June	15, 1858	XVII.
20609	Sackett, Davis, & Co. (See Lancelott, J, assignor.)	Lamps, burners and wick-tubes of vapor	July	20, 1858	V.
20977	Safford, George E., assignor to himself and F. G. and F. T. Ward.	Brick-machine	July	27, 1858	XV.
21025	Safford, M., assignor to himself and G. P. Kinney.	Brake, railroad	Mar.	30, 1858	IX.
19795	Sailor, S. H. (See Smith, Brown, & Sailor.)	Engines, gas, arrangement of	May	4, 1858	VI.
20172	Salisbury, S. C.	Vessels, sea-going, steam, lightening	Jan.	5, 1858	VII.
19047	Salomon, John C. F.	Tiller-rope protector	Aug.	26, 1858	VII.
21906	Salomon, John C. F., and George W. Morris	Cars, horse-railway, coupling for	July	27, 1858	X.
21026	Sample, John	Scales, platform	Dec.	7, 1858	XII.
22244	Sampson, Blaney E.	Engine, steam, cut-off for	Jan.	19, 1858	VI.
19154	Sampson, Elnathan	Pistons and piston-rod connexions	Mar.	23, 1858	VI.
19722	Samuel, A. P.	Telegraph-cables, method of laying submarine	Sept.	28, 1858	VIII.
21629	Samuel, A. P.	Bolting flour, machinery for	Aug.	24, 1858	XIII.
21277	Samuels, S.	Harness-saddle	Jan.	5, 1858	XVI.
21948	Sanborn, L. D. (See Robinson & Sanborn.)	Gas, illuminating, production of	July	27, 1858	IV.
21027	Sanders, Benjamin D.	Bee hive	Dec.	14, 1858	I.
22309	Sanders, Henry	Mill, grinding	Mar.	9, 1858	XIII.
	Sanders, Joseph D.	Plough	Feb.	23, 1858	I.
	Sanderson, William L. (See Vedder & Sanderson )	Sewing-machine	Mar.	2, 1858	III.
19587	Sanderson, William L. (See Vedder & Sanderson.)	Sewing-machine	June	8, 1858	III.
19455	Sanford, Gelston	Sewing-machine	Oct.	26, 1858	III.
19535	Sanford, Turney				
	Sangster, Amos W., assignor to Victor M. Rice, James Sangster, and Eliza Remington.				
20531	Sangster, A. W., assignor to V. M. Rice, J. Thayer, J. Sangster, and E. Remington.				
21929	Sangster, A. W., assignor to V. M. Rice, J. Thayer, J. Sangster, and E. Remington.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19155	Sangster, James, and Amos W	Sewing-machine	Jan. 19, 1858	III.
19723	Sangster, James, and Amos W	Sewing-machine	Mar. 23, 1858	III.
19585	Sargent, Charles G , and Francis A. Calvert	Carding-cylinders, clothing for	Mar. 9, 1858	III.
20852	Sargent, G. D., a-signor to himself and T. R. Abbott.	Alarm-clock, burglars'	July 6, 1858	XXII.
21218	Sargent, J. B. (See Brocksieper & Sargent.)	Andirons	Aug. 17, 1858	XVII.
19875	Sargent, J. B	Wallet-fastener	April 6, 1858	XXII.
21981	Sargent, Joseph B	Handles, lifting	Nov. 2, 1858	II.
20587	Sargent, T. D	Distilling oils from coal, retort for	June 15, 1858	IV.
20511	Saunders, Nathan, and F. T. Sherman	Excavating-machine	June 8, 1858	IX.
19876	Savage, Elliot	Sewing-machine	April 6, 1858	III.
22310	Savage, Julius B	Nut-machine	Dec. 14, 1858	II.
19796	Savage, S T	Stove	Mar. 30, 1858	V.
20733	Savage, S. T	Stove, cooking	June 29, 1858	V.
21445	Savage, S. T	Stove, coal	Sept. 7, 1858	V.
21446	Savage, S. T	Stove	Sept. 7, 1858	V.
21447	Savage, S. T	Stove lining, coal, construction of	Sept. 7, 1858	V.
22035	Savage, S. T	Tiles, plates, beams, &c., connecting metallic	Nov. 9, 1858	IX.
20667	Savage, Silas T	Furnaces of boilers and stoves	June 27, 1858	V.
22134	Savage, Silas T	Grate-bars	Nov. 23, 1858	V.
20174	Sawyer, A. C	Shingle machines, device by which the width of the bolt checks the feed in.	May 4, 1858	XIV.
21170	Sawyer, L. (See Wright & Sawyer.)	Cultivator	Aug. 10, 1858	I.
21982	Sawyer, Robert, assignor to William G. Brown	Surveying instruments, method of adjusting the plummet without moving the tripod in.	Nov. 2, 1858	VIII.
20734	Scarlett, W	Mill, grinding	June 29, 1858	XIII.
19589	Schaefer, A	Dividers, mathematical	March 9, 1858	VIII.
19797	Schaub, George	Printing, casting types for	March 30, 1858	XVIII.
21028	Scheitlin, J	Weighing and registering grain, machinery for	July 27, 1858	XII.

21802	Schenkl, John P., assignor to himself and Edward A. Dana.	Fire-arms or ordnance	Oct.	12, 1858	XIX.
20512	Schimmelfennig, A., and Julius Ende	Ink rollers	June	8, 1858	XVIII.
19226	Schleier, Charles S., assignor to John H. Bonn	Window-shade fixtures	Jan.	29, 1858	XVII.
21702	Schmadel, Joseph	Ranges and stoves, cooking boilers for	Oct.	5, 1858	V.
20513	Schnebly, W. and T	Weighing-machine, automatic grain	June	8, 1858	XIII.
22203	Schnebly, William and Thomas	Harvester	Dec.	1, 1858	I.
19049	Schneider, John	Car-coupling, railroad	Jan.	5, 1858	X.
19208	Schneider, John	Lock, pad	Jan.	26, 1858	II.
21278	Schnitzer, Joseph. (See Harrison & Schnitzer.)	Harpoon lance	Aug.	24, 1858	VII.
22135	Scholfield, Nathan	Knitting-machine	Nov.	23, 1858	III.
20916	Schott, Frederick	Lightning rods, device for securing	July	13, 1858	VIII.
19473	Schrage, V	Bed-bottoms, spring	Feb.	23, 1858	XVII.
	Schroeder, C., assignor to himself and P. H. Tuska.				
20514	Schuh, George	Steam-power meter	June	8, 1858	VI.
21907	Schultz, C. A.	Engine, steam	Oct.	26, 1858	VI.
19877	Schunks, F	Grain-separator	April	6, 1858	I.
19968	Schuyler, J. S., assignor to J. McCollum	Dough, machine for rolling and cutting	April	13, 1858	XVII.
21449	Schuyler, J. S., and L. A. Rockwell	Carriage-hose	Sept.	7, 1858	X.
21630	Scofield, B. B.	Plough	Sept.	28, 1858	I.
	Scott, Todd, & Co. (See Black, James, assignor.)				
21448	Scott, E. M.	Loom	Sept.	7, 1858	III.
21371	Scott, George	Telegraph cable, apparatus for paying out	Aug.	31, 1858	VIII.
19969	Scott, George, assignor to Scott, Todd, & Co	Steam generator	April	13, 1858	VI.
200	Scott, R. B.	Carriage wheels, tightening the tires of	June	8, 1858	Add. imp't.
19721	Scott, Robert B.	Carriage wheels, tightening the tires of	March	23, 1858	X.
20094	Scott, Thomas	Valve, steam	April	27, 1858	VI.
19382	Scott, Thomas M.	Trap, fly	Feb.	16, 1858	XXII.
19374	Scotten, Stephen	Roofs, sheet-metal, joints for	Feb.	9, 1858	IX.
20218	Scotten, S.	Railroads, implements for shooting missiles at cows, &c., on.	May	11, 1858	IX.
	Scovel, Nelson R. (See Pepper, Calvin, assignor )				
19878	Scoville & Ellithorpe. (See Ellithorpe & Scoville )	Plough	April	6, 1858	I.
	Scoville, Thaddeus S.				
19588	Scrimgeour, James (See Chilcott & Scrimgeour.)	Fastener, window	March	9, 1858	II.
19954	Scripture, E. S.	Wrench	April	13, 1858	II.
20822	Scripture, E. S.	Sash-holder	July	6, 1858	II.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20897	Seal, G. W. R. (See Dennison & Sealy.) Sealy, Thomas. (See Hoad & Searle) Searle, Thomas A. (See McConnell & Seaton.) Seaton, William. (See Bruff & Seaver.) Seaver & Bruff. (See Bruff & Seaver.)	Gas-generator	July 13, 1858	IV.
19209	Seaver, Ebenezer.	Galvanic battery	Jan. 26, 1858	VIII.
1011	Seavey, G. T.	Stoves, &c., ornament in bas-relief	June 1, 1858	Design.
19724	Seekins, H. G.	Fences, field, post for	March 23, 1858	IX.
20735	Seeley, B. W. (See Pollard, Ezra, assignor.) Seeley, H. H., and P. Griswold.	Grain-separator	June 29, 1858	I.
19050	Seiler, George. (See Friend & Seiler)	Oyster-opener	Jan. 5, 1858	XVII.
19210	Seipel, John, and William Rupp.	Distillation, preparing mash for	Jan. 26, 1858	IV.
20588	Seitz, George.	Harness-pad, construction of	June 15, 1858	XVI.
19718	Selleck, R. M.	Railroads, turning and sliding tables for	March 23, 1858	IX.
20446	Sellers, William.	Metal shafing, lathe for turning	June 1, 1858	II.
582	Sellers, William.	Railroads, turning and sliding tables for	Aug. 10, 1858	Reissue.
19451	Semple, A. C.	Bedsteads, cast-iron, fastenings of	Feb. 23, 1858	XVII.
19654	Semple, A. C.	Books, machine for trimming	March 16, 1858	XVIII.
22380	Sener, Joseph W. (See Waite & Sener.)	Governor for steam-engines	Dec. 21, 1858	VI.
21029	Senter, Gass, & Woodworth. (See Sherwood, Allen.)	Clothes-wringer	July 27, 1858	XVI.
20245	Serrell, L. W., assignor to John Harold.	Sewing-machines, guides for	May 11, 1858	III.
20394	Seymour, W. H., and H. Pease, assignors to W. H. Seymour and Dayton S. Morgan.	Harvester	May 25, 1858	I.
20515	Seymour, W. H., and D. S. Morgan.	Harvesting-machine	June 8, 1858	I.
21450	Seymour, W. H. (See Platt, N., assignor)	Ironing clothes, machine for	Sept. 1, 1858	XVII.
21703	Shaefer, John.	Ticket-holder	Oct. 5, 1858	XXII.
580	Shaler, I. W.	Knife-polisher		Reissue.
	Shaler, A., assignor to W. H. Hortsman.			

21451	Shaler, Reuben	Carpet-sweeper	Sept.	7, 1858	XVII.
22381	Shaler, Reuben	Brush	Dec.	21, 1858	XVII.
19158	Shanks, Thomas	Lamp or candlestick and match-box combined	Jan.	19, 1858	V.
	Shannon, P. (See Campbell, Lighthizer, & Shannon)				
20736	Sharp, John. (See Titus & Sharp.)				
20471	Sharts, T	Safes, fire and burglar proof	June	29, 1858	II.
19211	Shaw, C. A., J. Clark, and D. T. Giveen, assignors.	Sewing-machine	June	1, 1858	III.
20447	Shaw, Charles A., and James Clark	Tanning skins, apparatus for	Jan.	26, 1858	XVI.
20023	Shaw, David W., and William A. Megraw	Brush, whitewash	June	1, 1858	XVII.
	Shaw, E., and C. Carpenter, jr., assignors to themselves and G. B. Jastram.	Horse-shoe machine	April	20, 1858	II.
19879	Shaw, E. M	Lock	April	6, 1858	II.
19383	Shaw, G. W. (See Partridge & Shaw.)				
19534	Shaw, George W	Wind-wheels, method of furling the sails of	Feb.	16, 1858	XI.
	Shaw, Henry F., assignor to himself and Moses H. Gragg.	Saws, scroll	Mar.	2, 1858	XIV.
20130	Shaw, Thomas, assignor to himself and C. S. Patterson.	Gas-meter	April	27, 1858	IV.
22335	Shaw, Thomas, assignor to himself and C. S. Patterson.	Stove, gas-burning	Dec.	14, 1858	V.
20589	Shaw, W. F	Reflector, light	June	15, 1858	V.
22311	Shaw, William F	Lamp-shade supporter	Dec.	14, 1858	V.
19452	Shearer, Leander	Spike-machine	Feb.	23, 1858	II.
20374	Shears, A. L	Life-boat	May	25, 1858	VII.
19174	Shedaker, Benjamin, assignor to Edwin Bender	Floors, marquetry, construction of	Jan.	19, 1858	IX.
19516	Shehan, Thomas	Grapple, sub-marine	Mar.	2, 1858	VII.
21983	Shelby, William	Hemp-brake	Nov.	2, 1858	III.
19159	Sheldon, Smith, & Co. (See Ham, R., assignor.)				
21726	Sheldon, William D	Fences, field, method of connecting the panels of	Jan.	19, 1858	IX.
	Shell, A. N, assignor to W. S. Wood and T. N. Shell.	Trap, roach	Oct.	5, 1858	XXII.
20590	Shellabarger, M. M.	Doors, weather-strip for	June	15, 1858	IX.
	Shepard, Charles J. (See Williams, Charles, assignor.)				
975	Shepard, Charles J	Stoves	Jan.	5, 1858	Design.
21984	Shepherd, F	Book and slate combined	Nov.	2, 1858	XVIII.
	Shepherd, Samuel. (See Earle, John E., assignor.)				
	Sheppard, Sidney. (See Perry, Horatio O.)				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20898	Sherburne, N. H	Churn	July 13, 1858	I.
20899	Sherburne, N. H	Grain-cleaning machine	July 13, 1858	I.
20516	Sherman, David S. Sherman, F. T. (See Saunders & Sherman.) Sherry, John. (See Kelley, James, assignor.)	Punching-machine	June 8, 1858	II.
19212	Sherwood, Allen	Harvesters, raking and binding, devices for	Jan. 26, 1858	I.
21540	Sherwood, Allen, assignor to E. P. Senter, Albert H Goss, and Daniel Woodworth. Sherwood, Samuel S. and A. (See Douglass & Sherwood.)	Harvesters, raking and binding, apparatus for	Sept. 14, 1858	I.
22091	Shinn, S. S.	Glass bottles, mould for.	Nov. 16, 1858	XV.
22092	Shiverick, Benjamin	Hammer, forge	Nov. 16, 1858	II.
19821	Shrader, Henry	Press, cotton	Mar. 30, 1858	XII.
20095	Shuler, Isaac O.	Coffins, constructing	April 27, 1858	XXII.
21985	Sibbet, John W	Car-seats	Nov. 2, 1858	X.
22314	Sibbet, John W	Carriage-thills to axles, attaching	Dec. 14, 1858	X.
21219	Sibley, Rufus	Bomb-lance	Aug. 17, 1858	XIX.
565	Sickels, F. E.	Steam-cylinder with the steam-chests, mode of connecting the.	June 1, 1858	Reissue.
	Sickels, F. E.	Valves of steam-engines, method of opening and closing the.		Extension.
20219	Sickels, G	Pencils, slate, instrument of sharpening	May 11, 1858	XVIII.
22315	Siemens, Charles W Sigourney, Joseph. (See Harkness & Terry, assignors.)	Meters, fluid	Dec. 14, 1858	II.
20307	Sikes, O. S	Boot-jack	May 18, 1858	XVII.
21279	Simkins, Elisha	Bolt-machine	Aug. 24, 1858	II.
21908	Simkins, Elisha	Mining coal, machine for	Oct. 26, 1858	IX.
21853	Simmerman, Jacob S.	Teeth, method of applying electricity during ex- traction of.	Oct. 19, 1858	XX.
21780	Simmons, Andrew	Seeding-machine	Oct. 12, 1858	I.
21986	Simmons, I. H.	Railroad chair	Nov. 2, 1858	IX.

20448	Simonds, W. A.	Gas retort	June 1, 1858	IV.
20173	Simons, R.	Roofing, cement for	May 4, 1858	IX.
19384	Simpson, William M.	Bank-check canceller	Feb. 16, 1858	XXII.
20958	Sinclair, R., jr	Straw-cutter	July 20, 1858	I.
20900	Singer & Clark. (See Morey & Johnson, assignors.)	Sawing machines, scroll	July 13, 1858	XIV.
20591	Sirret, E., jr	Furnaces for burning bagasse, &c	June 15, 1858	V.
22382	Sirwell, R. G. (See Horral & Sirwell)	Furnace-boiler	Dec. 21, 1858	V.
19519	Skelly, E.	Clock calendar	March 2, 1858	VIII.
21372	Skinner, H	Omnibus, &c, fare-boxes for	Aug. 31, 1858	X.
550	Slawson, J. B. (See Reeves, Israel S., assignor.)	Boxes for receiving passengers' fares	May 4, 1858	Reissue.
19798	Slawson, J. B.	Pendulum-power, applying	March 30, 1858	VIII.
20375	Slevin, Andrew	Gas-retort	May 25, 1858	IV.
626	Sloan, Hervy. (See Turner, Alexander, assignor.)	Screws, wood	Nov. 23, 1858	Reissue.
19051	Sloan, Hervy. (See Turner, Bess, & Sloan.)	Lathe, turning	Jan. 5, 1858	XIV.
20737	Sloan, I. T., Volney Smith, Manuel Hoover, & R. M. Briggs.	Stave-machine	June 29, 1858	XIV.
21987	Sloan, Thomas J., assignor to the Eagle Screw Company.	Candlesticks, &c.	Nov. 2, 1858	V.
21373	Sloane, W. M.	Skirts, hoop, clasps for	Aug. 31, 1858	XXI.
19517	Sloat, G. B. (See Blodgett, S. C., assignor.)	Metal pans, sheet, machine for forming	March 2, 1858	II.
20376	Slocumb, S	Chair and cradle, combined rocking	May 25, 1858	XVII.
21578	Small, Alexander. (See Smith, Brown, & Sailor, assignors)	Water-wheel	Sept. 21, 1858	XI.
20823	Smart, A.	Cultivator, cotton	July 6, 1858	I.
22036	Smead, E. A.	White lead, manufacture of	Nov. 9, 1858	IV.
19474	Smith, Sheldon, & Co. (See Ham, R., assignor.)	Washing-machine	Feb. 23, 1858	XVII.
21781	Smith, A. S.	Electricity, method of lighting street-lamps by	Oct. 12, 1858	VIII.
19880	Smith, Alpha.	Railroad station indicator	April 6, 1858	IX.
	Smith, Asberry			
	Smith, Benjamin F			
	Smith, Benjamin R., assignor, to John Hellings			
	Smith, C. W			
	Smith, Charles J			



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20305	Smith, Charles W .....	Burners, device for regulating by electricity the issue of gas from.	May 18, 1858 .....	V.
20223	Smith, Daniel C. ....	Corn-husker .....	May 11, 1858 .....	I.
21088	Smith, Daniel N. ....	Chuck for centering, &c .....	Aug. 3, 1858 .....	II.
19213	Smith, David W. ....	Fire-arms, nipple-guard of .....	Jan. 26, 1858 .....	XIX.
20175	Smith, E. Harry .....	Sewing-machine .....	May 4, 1858 .....	III.
20739	Smith, E. Harry .....	Sewing-machine .....	June 29, 1858 .....	III.
21089	Smith, E. Harry .....	Sewing-machine .....	Aug. 3, 1858 .....	III.
19214	Smith, Frederick .....	Water-wheel .....	Jan. 26, 1858 .....	XI.
20738	Smith, G., and A. G. Perry .....	Planter, seed .....	June 29, 1858 .....	I.
974	Smith, G., H. Brown, and S. H. Sailor, assignors to Alexander Small and E. G. Smyser.	Stoves, cook's .....	Jan. 5, 1858 .....	Design.
1019	Smith, G., and H. Brown, assignors to Leibbrandt, McDowell, & Co.	Stove, cook .....	June 29, 1858 .....	Design.
1018	Smith, G., and H. Brown, assignors to Leibbrandt, McDowell, & Co.	Stove, cook's .....	June 29, 1858 .....	Design.
1072	Smith, G., and H. Brown, assignors to Leibbrandt, McDowell, & Co.	Stove, parlor .....	Dec. 14, 1858 .....	Design.
1029	Smith, G., and H. Brown, assignors to G. Abbott and A. Lawrence.	Stove .....	July 20, 1858 .....	Design.
1073	Smith, G., and H. Brown, assignors to G. Abbott and A. Lawrence.	Range, cook .....	Dec. 14, 1858 .....	Design.
1052	Smith, G., and H. Brown, assignors to North, Chase, & North.	Stove .....	Sept. 21, 1858 .....	Design.
21376	Smith, G. W. ....	Warming device, feet .....	Aug. 31, 1858 .....	V.
21520	Smith, George H. ....	Balances, spring, in combination with a knife .....	Sept. 14, 1858 .....	XII.
20959	Smith, George R. ....	Railroad switches .....	July 20, 1858 .....	IX.
20592	Smith, George W. ....	Pitcher, ice .....	June 15, 1858 .....	XVII.
1028	Smith, George W. ....	Pitcher .....	July 20, 1858 .....	Design.
598	Smith, Gilbert .....	Cartridges .....	Sept. 14, 1858 .....	Reissue.
20313	Smith, H., assignor to H. Disston .....	Saws, hand, device attached to, for squaring and marking.	May 18, 1858 .....	XIV.

20824	Smith, H. B.	Mouldings, arrangement of devices for planing	July	6, 1858	XIV.
19590	Smith, H. C.	Harvester	Mar.	9, 1858	I.
20225	Smith, H. C.	Harvester	May	11, 1858	I.
20449	Smith, H. E.	Threshing-machine	June	1, 1858	I.
21909	Smith, H. M.	Straw-cutters	Feb.	18, 1858	Extension.
19518	Smith, Hamilton E.	Washing-machine	Oct.	26, 1858	XVII.
19104	Smith, Henry C.	Harvester-fingers	Mar.	2, 1858	I.
21375	Smith, Horace. (See Harrington, F. H., assignor.)	Excavator	Jan.	12, 1858	IX.
19160	Smith, J. D.	Seeding-machine	Aug.	31, 1858	I.
21374	Smith, Jeremiah P.	Corn-sheller	Jan.	19, 1858	I.
19655	Smith, John F., and Wightman Brown	Churn	Aug.	31, 1858	I.
21854	Smith, John M. (See Weatherhead & Henry, assignors.)	Gas retort, portable	Mar.	16, 1858	IV.
188	Smith, John W.	Harvester	Oct.	19, 1858	I.
19103	Smith, Joseph. (See Bussell & Smith)	Rolls, drawing covering for	Jan.	26, 1858	Add'l imp't.
20096	Smith, Joseph D.	Butter-worker	Jan.	12, 1858	XVII.
21377	Smith, Joseph M.	Paddle-wheel	April	27, 1858	VII.
22383	Smith, Justin M.	Cultivator	Aug.	31, 1858	I.
20593	Smith, Nathan.	Harness-buckles	Dec.	21, 1858	XVI.
198	Smith, Nathaniel S. (See Jones & Smith.)	Harvester	June	15, 1858	I.
21250	Smith, Newton W. (See Jones & Smith.)	Printing-press, hand	April	6, 1858	Add'l imp't.
22268	Smith, O. B.	Windlass	Aug.	24, 1858	VII.
20224	Smith, O. P. (See Arnall, William M.)	Saw-mill	Dec.	7, 1858	XIV.
22037	Smith, R. D. O. (See Bryant & Smith)	Straw-cutter	May	11, 1858	I.
19157	Smith, S. H.	Mattresses and cushions, elastic material for	Nov.	9, 1858	XVII.
21988	Smith, Samuel J.	Car-brakes, railroad	Jan.	19, 1858	X.
20517	Smith, Samuel N.	Wool and other fabrics for spinning, preparing	Nov.	2, 1858	III.
19156	Smith, Samuel R., and Philander P. Lane, assignors to Lane & Bodley.	Provision-cutter	June	8, 1858	XVII.
20224	Smith, Solomon P.	Millstones, feeding	Jan.	19, 1858	XIII.
22037	Smith, Thomas Briggs				
19157	Smith, Thomas W.				
21988	Smith, V. (See Sloan, Smith, Hoover, & Briggs.)				
20517	Smith, Waterman				
19156	Smith, William				
20517	Smith, William B. (See Holser, Charles F., assignor.)				
19156	Smith, Winser				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20594	Smull, George L.----- Smyser, E. G. (See Smith, Brown, & Sailor, as- signors.)-----	Brick-machine -----	June 15, 1858-----	XV.
21154	Sneider, C. E.-----	Printing-press-----	Aug. 10, 1858-----	XVIII.
19611	Snell, Edward S., assignor to himself and Francis B. Washburn.-----	Boots and shoes, machine for pricking and cutting heels of -----	Mar. 9, 1858-----	XVI.
20960	Snell, V.-----	Boots and shoes, heel-shavers for -----	July 20, 1858-----	XVI.
19955	Snelling, Joseph-----	Chain-shackle-----	April 13, 1858-----	II.
20306	Snow, George K.-----	Stamps to letters, post office, machine for affixing- -----	May 18, 1858-----	XXII.
20684	Snow, Heman S., assignor to himself and G. F. Snow.-----	Sewing-machine-----	June 22, 1858-----	III.
20901	Snyder, J. H.-----	Rolling railway-chairs-----	July 13, 1858-----	II.
22038	Solis, Richard-----	Shirred goods, machinery for manufacturing -----	Nov. 9, 1858-----	IV.
636	Solis, Richard, assignor to Horace H. Day----- Solomans, A. S. (See Morrison, Thomas, assignor.)-----	Cloth, elastic, manufacture of -----	Dec. 14, 1858-----	Reissue.
22245	Solomon, Lewis-----	Amalgamator -----	Dec. 7, 1858-----	II.
20825	Soule, George H.-----	Fire-arm, breech-loading -----	July 7, 1858-----	XIX.
19521	Southwick, Hosea -----	Mill, grinding-----	Mar. 2, 1858-----	XIII.
19161	Spafford, William W.-----	Spinning-machine -----	Jan. 19, 1858-----	III.
20668	Spangenberg, R. F. (See Monastier, J., assignor.)-----	Stove, cooking -----	June 22, 1858-----	V.
21521	Spaulding, S. B.-----	Lantern -----	Sept. 14, 1858-----	V.
19956	Spaulding, Stillman C.-----	Stove, cooking-----	April 13, 1858-----	V.
20450	Spear, James -----	Stove, cooking-----	June 1, 1858-----	V.
21522	Spear, N. T. (See Grover, L. A., assignor.)-----	Corn-husker -----	Sept. 14, 1858-----	I.
195	Spear, N. T.-----	Clasps for metallic hoops -----	Mar. 23, 1858-----	Add'l imp't.
207	Speer, James R.-----	Hoops, metallic, clasps for -----	Oct. 26, 1858-----	Add'l imp't.
20097	Speer, James R.-----	Bedstead -----	April 27, 1858-----	XVII.
22384	Speers, N. W.-----	Mills, flouring -----	Dec. 21, 1858-----	XIII.
20176	Speight, Ira -----	Cars, railroad, method of ventilating and ex- cluding dust from.-----	May 4, 1858-----	X.
	Spencer, A. B.-----			

21631	Spencer, Charles L.	Switches, railroad	Sept.	28, 1858	IX.
22136	Spencer, James	Printing names or directions on packages, &c., machine for	Nov.	23, 1858	XVIII.
22137	Spencer, James H., and Thomas Lamb	Sewing-machine	Nov.	23, 1858	III.
20766	Spencer, Seth P., assignor to himself, S. S. Spencer, and Harris Boardman.	Rollers, drawing	June	29, 1858	III.
21782	Sperry, E. W. (See White, Le Roy, assignor.)	Planing-cutter, rotary	Oct.	12, 1858	XIV.
19974	Sperry, John	Manure-beds, preparing	April	13, 1858	IV.
22204	Spieker, Charles F.	Canals, &c., stop-gate for	Nov.	30, 1858	IX.
1071	Sprague, Joseph W.	Stove, dining-room	Dec.	7, 1858	Design.
20518	Sprecher, George D.	Bedstead	June	8, 1858	XVII.
20378	St. Charles, W.	Harvesters, raking-attachment to	May	25, 1858	I.
21378	St. John, J. A.	Propeller for boats	Aug.	31, 1858	VII.
	St. John, Le Grand C.				
	St. John, R. H. (See Hoge, Solomon G., assignor.)				
20903	St. John, William W.	Sleigh-runners, attaching	July	13, 1858	X.
20826	Stace, W. R.	Tailors' measure	July	6, 1858	XXI.
22138	Stadtmmuller, L.	Ore-separator	Nov.	23, 1858	II.
20451	Staehlen, W.	Spittoon	June	1, 1858	XVII.
20961	Staehlen, W.	Firemen's trumpet	July	20, 1858	XXII.
22093	Stafford, Charles W.	Churn	Nov.	16, 1858	I.
19719	Stafford, R. J.	Looms, hair cloth, stop motion for	March	23, 1858	III.
21783	Stamm, F.	Mortising machines, mode of reversing the chisels in.	Oct.	12, 1858	XIV.
21452	Stanbro, Samuel	Seeding machine	Sept.	7, 1858	I.
20828	Stanciliff, C. A., and James Mingis	Rails, chair, continuous	July	6, 1858	IX.
21030	Stanford, C. P.	Crushing and grinding the same, feeding quartz, &c., to machine for.	July	27, 1858	XIII.
	Stanley, Henry	Stoves, coal	Dec.	24, 1858	Extension.
19520	Stannard, George J. (See French, A. F., assignor.)	Bee-hive	March	2, 1858	I.
19881	Stanberry, S.	Printing-stamp, hand	April	6, 1858	XVIII.
21090	Stanton, Benjamin B.	Gas-burner, Argand	Aug.	3, 1858	V.
	Stanwood, J. E.				
	Staples, Watson, et al. (See Wolfe, H. R., assignor.)	Fire-arm, breech-loading	Sept.	14, 1858	XIX.
21523	Starr, E. T.	Hemp, Tampico, treatment of fibre of	July	6, 1858	III.
20827	Staufen, W.				
	Stearns, Joseph E. (See Dorman & Stearns.)				
21991	Stebbins, F.	Boilers, steam, safety apparatus for	Nov.	2, 1858	VI.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21855	Steckel, Daniel. (See Garrett & Steckel.)	Umbrella.....	Oct. 19, 1858.....	XXI.
21992	Steele, Henry.....	Cars, railroad, speed indicator and recorder for.....	Nov. 2, 1858.....	X.
21856	Steele, J. D., and H. Lorenz.....	Staves from the bolt, machine for cutting.....	Oct. 19, 1858.....	XIV.
20006	Steele, William.....	Sewing-machine.....	April 20, 1858.....	III.
	Steer, P. J.....			
1041	Steetle, J. (See Henderson & Steetle.)			
	Steffe, Jacob, James Horton, and John Currie, assignors to David Stewart and Richard Peter- son.	Stove, (fancy egg).....	Aug. 17, 1858.....	Design.
1042	Steffe, Jacob, James Horton, and John Currie, assignors to David Stewart and Richard Peter- son.	Stove, (iron side).....	July 17, 1858.....	Design.
19586	Steigers, Mathias.....	Motion, reciprocating, mode of producing verti- cal and horizontal.	March 9, 1858.....	XIII.
19898	Steinman, Robert, assignor to himself and N. S. Wax.	Lamp.....	April 6, 1858.....	V.
20595	Steinway, H.....	Piano-forte actions.....	June 15, 1858.....	XVIII.
21989	Stemple, Adolph.....	Harness, machine for creasing and blacking leather for.	Nov. 2, 1858.....	XVI.
20007	Stephens, E. W., and R. Jenkins.....	Railroad rails.....	April 23, 1858.....	IX.
20452	Stephens, E. W., and R. Jenkins.....	Railway cars, rollers for.....	June 1, 1858.....	IX.
22385	Stephens, J. (See Henwood & Stephens.)	Skirt-hoop, buckles for.....	Dec. 21, 1858.....	XXI.
19105	Stephens, John, and James Hanley.....	Rule, carpenters'.....	Jan. 12, 1858.....	VIII.
19799	Stephens, L. C.....	Iron shafts, wrought, manufacture of tubular.....	March 30, 1858.....	II.
22333	Stephens, W. A., and R. Jenkins.....	Valve-gear slide for oscillating engines.....	Dec. 14, 1858.....	VI.
21281	Stephens, William, assignor to Richard Stephens	Gas-regulator.....	Aug. 24, 1858.....	IV.
22334	Sterling, W. G.....	Boiler, steam.....	Dec. 14, 1858.....	VI.
21993	Stern, J. C., assignor to himself and G. W. Stone	Harvester.....	Nov. 2, 1858.....	I.
21990	Stetson, C. T.....	Pianos, pedal, attachment for.....	Nov. 2, 1858.....	XVIII.
19106	Stetson, William B.....	Scissorssharpeners.....	Jan. 12, 1858.....	XXII.
22246	Steveley, A.....	Composition, water-proof, cork.....	Dec. 7, 1858.....	IV.
	Stevens, Andrew.....			

22205	Stevens, Bradford, and Lorenzo	Boot-soles, crimping	Nov.	30, 1858	XVI.
21091	Stevens, E. M.	Pegging-machine	Aug.	3, 1858	XVI.
20377	Stevens, J. C.	Drill, seed	May	25, 1858	I.
22039	Stevens, John	Shirt-bosom folders	Nov.	9, 1858	XXI.
21803	Stevens, Judd, assignor to himself and John L. Beadle.	Spading-machines	Oct.	12, 1858	I.
20220	Stevens, M.	Mills, cider	May	11, 1858	XIII.
21857	Stevens, Thomas S.	Cultivator.	Oct.	19, 1858	I.
21155	Stevens, W. J.	Valves, steam	Aug.	10, 1858	VI.
19385	Stevens, William K.	Lubricators	Feb.	16, 1858	XII.
1047	Stevens, William W., assignor to Nathaniel P. Richardson & Co.	Stove, cook's, oven	Sept.	7, 1858	Design.
21910	Stevenson, C. L.	Bolts, machine for drawing	Oct.	26, 1858	II.
20520	Stevenson, W. J.	Bottles, jars, &c., metallic caps for	June	8, 1858	XXII.
19800	Stevenson, William J.	Peas, machine for shelling	March	30, 1858	I.
20962	Stewart, A. D.	Barrel-heads, machine for cutting both bevels simultaneously on.	July	20, 1858	XIV.
21171	Stewart, J. F. (See Hall & Stewart.)	Stove, cooking	Aug.	10, 1858	VI.
22458	Stewart, J. L., assignor to Rudolph A. Nathurst	Dredging-machine	Dec.	28, 1858	IX.
22150	Stewart, John, assignor to Charles Wall	Rope-yarn, machine for tarring	Nov.	23, 1858	III.
20453	Stewart, John L.	Gas, manufacture of	June	1, 1858	IV.
21524	Stewart, Robert	Valve, combination steam	Sept.	14, 1858	VI.
21579	Stewart, Thomas	Valve for steam-engines, rotary	Sept.	21, 1858	VI.
21911	Stewart, Thomas	Engines, applying power to the cranks of	Oct.	26, 1858	VI.
19957	Stiles, George, jr., and Strickland Kneass	Horse-shoe machine	April	13, 1858	II.
619	Stillman, Alfred, deceased, Elizabeth Ann Harris, administratrix.	Furnace for burning bagasse	Nov.	9, 1858	Reissue.
21717	Stillman, Walter. (See Ridley, Henry, assignor.)	Butter-cooler	Oct.	5, 1858	XVII.
20902	Stimpson, J., and James H. Stimpson	Butter-cooler	July	13, 1858	XVII.
21220	Stimpson, J. H.	Butter-bucket.	Aug.	17, 1858	XVII.
	Stimpson, James H.	Vessels for holding liquids	Nov.	12, 1858	Disclaimer.
	Stimpson, James H., assignor to Sophia E. and Julia Stimpson, and Edward F. Colburn.				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21031	Stoddard, A	Harvester, corn	July 27, 1858	I.
19958	Stoddard, O	Harvesters, raking attachment to	April 13, 1858	I.
20221	Stoddard, O	Harvester	May 11, 1858	I.
22312	Stoddard, Oren	Harvester	Dec. 14, 1858	I.
19215	Stoddard, William	Ploughing-machine	Jan. 26, 1858	I.
20669	Stone, C	Clothes, frame for drying	June 22, 1858	XVII.
19107	Stone, Chester	Rack, clothes	Jan. 12, 1858	XVII.
21727	Stone, Draper, assignor to himself and E. S. Turner	Car-seats, railroad	Oct. 5, 1858	X.
	Stone, G W. (See Stern, J. C., assignor.)			
22474	Stone, Harley, assignor to P. P. Todd	Bit, expanding	Dec. 28, 1858	XIV.
21032	Stone, James A	Horse-power machine	July 27, 1858	XIII.
19265	Stone, N. F., and W. H. Ward	Saw-gummer	Feb. 2, 1858	II.
	Storer, C. (See Bennett & Storer.)			
21473	Storm, W. M., assignor to A. Cummings	Stamping milk-cans, apparatus for	Sept. 7, 1858	XXII.
20519	Storrs, L. B.	Tailors' pressing-machine	June 8, 1858	XXI.
21453	Story, C. L.	Shingles from the log, method of manufacturing	Sept. 7, 1858	XIV.
21379	Stover, H D.	Irregular forms, machine for cutting	Aug. 31, 1858	XIV.
22459	Stow, O. W.	Burring-machine	Dec. 28, 1858	II.
	Strange, James W. (See Bellingrath, Leonard, jr., assignor)			
22460	Stratton, Samuel T.	Starch, manufacture of	Dec. 28, 1858	IV.
19386	Strause, G	Mill-bushes	Feb. 16, 1858	XIII.
20220	Straw, W., and R. H. Armstrong	Harness tug-buckle	May 11, 1858	XVI.
19454	Strong, Charles	Saw-mill	Feb. 23, 1858	XIV.
	Stuart, Cresson, and Peterson. (See Delany & Martino, assignors.)			
	Stuart & Peterson. (See Horton, J., assignor.)			
	Stuart, D. (See Reed, J. A, assignor.)			
22313	Stubblefield, Thomas	Gauges, water, for steam-boilers	Dec. 14, 1858	VI.
20454	Stuber, J., and F. Frank	Furnace, hot-air	June 1, 1858	V.
19266	Stuber, John, and Richard Hughes	Lamp	Feb. 2, 1858	V.
	Sturges, D. B. (See Kuehnhold & Sturges.)			

19282	Sturn, Ignatius. (See Klinger, John G., assignor.)	Shoe-peg, method of preparing blanks for	Feb. 2, 1858	XVI.
21593	Sturtevant, R. F., assignor to himself and Elmer Townsend.	Boots and shoes, machine for pegging	Sept. 21, 1858	XVI.
19720	Sullivan, D., and M. McIntyre	Gas-burner	March 23, 1858	V.
20098	Sultzback, H. Lee	Leather-sticker	April 27, 1858	XVI.
20008	Summers, J.	Gates, farm, catch-latch for	April 20, 1858	IX.
	Sumner, Palmer	Lath, metallic	April 24, 1858	Extension.
	Sumner, Palmer	Ceilings, fire-proof	April 25, 1858	Disclaimer.
635	Sumner, William	Organs	Dec. 14, 1858	Reissue.
21704	Suter, James S., and George M. Palmer	Cigars, wrappers for	Oct. 5, 1858	XXII.
20963	Sutton, J. L.	Stove, steam	July 20, 1858	VI.
640	Sutton, J. L., assignor to H. Downing	Stove, steam	Dec. 29, 1858	Reissue.
21858	Swan, James	Hydrant	Oct. 19, 1858	XI.
21221	Swan, Moses	Churns, &c., operating	Aug. 17, 1858	I.
20099	Swaney, Charles M.	Washing-machine	April 27, 1858	XVII.
19656	Swartley, J. S. (See Brey, E., assignor.)	Boat-propeller, canal	March 16, 1858	VII.
21282	Swartz, George W.	Fire-escape	Aug. 24, 1858	XXII.
21381	Sweeney, Owen	Bracelets	Aug. 31, 1858	XVIII.
21222	Sweet, Francis M.	Nail-plate feeder	Aug. 17, 1858	II.
21380	Sweet, James H.	Railway-chairs, rolling	Aug. 31, 1858	IX.
22461	Sweetland, J. B. (See Rider, W., assignor.)	Washing-machine	Dec. 28, 1858	XVII.
21525	Swift, Carr, Condit, Barnum, and Burr. (See Frost & Monroe, assignors.)	Pliers	Sept. 14, 1858	II.
22094	Swigert, George W.	Fire-arm, breach-loading	Nov. 16, 1848	XIX.
1050	Sykes, Chester W.	Bedstead, cast iron	Aug. 14, 1858	Design.
22040	Symmes, John C.	Saws, machine for filing	Nov. 9, 1858	II.
20379	Tabb, Philip	Wrench	May 25, 1858	II.
20831	Tabor, Calvin and Byron D.	Corn-sheller	July 6, 1858	I.
21705	Taft, George C.	Tanning, apparatus for	Oct. 5, 1858	XVI.
	Taft, P. P.	Life-preserving rafts, canvas sheets connected with	Jan. 26, 1858	VII.
19216	Taggart, A. C. and A. Gray	Life-preserving raft	March 2, 1858	Reissue.
535	Taggart, A. W. (See Thompson, Samuel, assignor.)	Screw-drivers, ratchet movement for	Jan. 19, 1858	II.
19162	Taggart, Lorenzo			
	Taggart, Lorenzo			
	Talbot, G. H.			



Patentees of inventions and designs, 1858.

No.	Names of patentee.	Invention or discovery.	Date.	Class.
19959	Tallman, William	Gas-burner	April 13, 1858	V.
21156	Tallon, John	Rice, machine for pounding	Aug. 10, 1858	XIII.
21912	Taltavull, Peter	Bee-hive	Oct. 26, 1858	I.
19315	Tambling, W. H.	Washing-machine	Feb. 9, 1858	XVII.
20740	Tambling, W. H.	Churn	June 29, 1858	I.
21223	Tapley, D. J.	Shoe-tool, combination	Aug. 17, 1858	XVI.
22095	Tapley, Daniel J.	Boot and shoe soles, machine for moulding	Nov. 16, 1858	XVI.
22386	Tarr, Asa F.	Mitre-box	Dec. 21, 1858	XIV.
19591	Tasker, Thomas T.	Radiator, hot-water	Mar. 9, 1858	V.
20226	Tatum, J. H.	Brush	May 11, 1858	XVII.
21706	Tatum, Joel H.	Candles, manufacture of	Oct. 5, 1858	IV.
22247	Taylor, Allen	Cans, preserve, sealing	Dec. 7, 1858	XVII.
21382	Taylor, Alva B.	Hat-body machinery	Aug. 31, 1858	III.
19657	Taylor, Anson	Preparing silk for use with felting substances	Mar. 16, 1858	IV.
20024	Taylor, George, assignor to himself and John W. Free.	Planter, corn	April 20, 1858	I.
20100	Taylor, George F. (See Chilcott & Scrimgeour.)	Drawer for closets, bureaux, &c	April 27, 1858	XXII.
20829	Taylor, George W. (See Bullock, Wm., assignor.)	Nail-machine	July 6, 1858	I.
20830	Taylor, H. R.	Hulling-machine, rice	July 6, 1858	I.
20131	Taylor, H. W.	Ship's capstan	April 27, 1858	VII.
20741	Taylor, J. F.	Pen, fountain	June 29, 1858	XVIII.
21033	Taylor, James R., assignor to Wm. Skiddy	Compounds for protecting trees from insects	July 27, 1858	IV.
20741	Taylor, Susan E.	Gas-generators	May 4, 1858	IV.
21033	Taylor, W. W.	Saving-machine, crosscut	Mar. 30, 1858	XIV.
20177	Taylor, Wm. (See Burlingame, S. S., assignor.)	Meter, water	Aug. 24, 1858	II.
19801	Teal, J. W. (See Dake & Teal.)	Fire-arm, repeating	Feb. 16, 1858	XIX.
21283	Telford, George			
19387	Tenney, F. A.			
	Tenney, John. (See Brown, Cyriel E., assignor.)			
	Terrel, Charles C.			
	Terry, W. A. (See Harkness & Terry.)			

20904	Tetlow, J	Gin, cotton	July	13, 1858	III.
19592	Tewksbury, Abijah R	Pavement, iron	Mar.	9, 1858	IX.
20101	Thacher, S. P. (See Ridley, Henry, assignor.)	Washing-machine	April	27, 1858	XVII.
21109	Tharp, E	Gun, centrifugal	Aug.	3, 1858	XIX.
19882	Thayer, C. B., assignor to himself and Charles Robinson.	Carpet-holder	April	6, 1858	XVII.
21474	Thayer, H	Journal-boxes	Sept.	7, 1858	XIII.
19316	Thayer, H. H., assignor to J. A. Woodbury and S. A. Woods.	Painting and varnishing machine	Feb.	9, 1858	XVIII.
20905	Thayer, Henry. (See Campbell, Ethan, ass'r.)	Teeth, extracting, apparatus as aids in	July	13, 1858	XX.
20102	Thayer, Horace, and Levi L. Martin	Mill for grinding paint	April	27, 1858	XIII.
22387	Thayer, J. (See Sangster, A. M., assignor.)	Press, cam	Dec.	21, 1858	XII.
21157	Thayer, R. (See Bailey & Thayer.)	Gridirons, folding	Aug.	10, 1858	V.
21034	Thiers, R. (See Lacassagne & Thiers.)	Planter, seed	July	27, 1858	I.
19328	Thomas, Charles C	Gun, cane	Feb.	9, 1858	XIX.
22041	Thomas, Chauncey	Furnace for tempering steel	Nov.	9, 1858	V.
1061	Thomas, Enoch	Stove	Nov.	9, 1858	Design.
20178	Thomas, J. H., and P. P. Mast	Lamp attachment for preventing smoke, &c	May	4, 1858	V.
20455	Thomas, John F., assignor to himself and Samuel Remington.	Hoisting and lowering goods, machinery for	June	1, 1858	XII.
19802	Thomas, Joseph	Composition, mastic	Mar.	30, 1858	IV.
21158	Thomas, Joseph	Cement for roofing purposes	Aug.	10, 1858	IV.
21784	Thompson, George	Rule for describing polygonal forms	Oct.	12, 1858	VIII.
20308	Thompson, Meriwether	Boats, moulding frame for the construction of	May	18, 1858	VII.
19317	Thompson, N., jr	Boats, collapsible	Feb.	9, 1858	VII.
22462	Thompson, Nathan, jr	Car-seats and couches, railroad	Dec.	28, 1858	X.
21994	Thompson, Nathan, jr	Lock	Nov.	2, 1858	II.
21580	Thompson, O. B.	Harrow, rotary	Sept.	21, 1858	I.
19818	Thompson, Salathiel, S	Planter, seed	Mar.	30, 1858	I.
19163	Thompson, Samuel, assignor to himself and A. W. Taggart.	Plough	Jan.	19, 1858	I.
	Thompson, Thomas				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20742	Thomson, John	Sewing-machine	June 29, 1858	III.
21581	Thomson, W. S.	Skirts, ladies', eylet fastenings for	Sept. 21, 1858	XXI.
20380	Thorn, L.	Boilers, steam, feed-regulator for	May 25, 1858	VI.
20743	Thorndike, John	Punch, brad	June 29, 1858	II.
19267	Thrasher, Francis, and Henry B. Horton	Window-sashes, fastening for	Feb. 2, 1858	IX.
21092	Throop, G. E. (See Howes & Throop.)			
20744	Thum, Charles D.	Brush case, shoe	Aug. 3, 1858	XVII.
	Thurber, W.	Propeller	June 29, 1858	VII.
	Tiffany, D. B. (See Farrington, George K., assignor.)			
	Tiffany, David B. (See Farrington & Brown.)			
21383	Tift, John D.	Grain-separator	Aug. 31, 1858	I.
20964	Tift, S. H.	Clothes-dryer	July 20, 1858	XVII.
21035	Tift, S. H.	Clothes-dryer	July 27, 1858	XVII.
19456	Tilton, Daniel L.	Planter, seed	Feb. 23, 1858	I.
19725	Tilton, Daniel L.	Plough	Mar. 23, 1858	I.
21384	Timby, F. R.	Casket, travelling	Aug. 31, 1858	XXII.
21385	Tindall, Thomas J.	Washing-machine	Aug. 31, 1858	XVII.
22096	Tingley, John	Hame-fastener	Nov. 16, 1858	XVI.
19217	Tinney, Joseph	Door, weather-strip for	Jan. 26, 1858	IX.
20103	Tittle, John	Straw-cutter	April 27, 1858	I.
20745	Titus, E. H., and John Sharp	Lumber, machine for resawing	June 29, 1858	XIV.
	Tobey, William. (See Pitcher, Benjamin, assignor.)			
21526	Tobey, William	Gate	Sept. 14, 1858	IX.
20104	Tobin, J.	Smut and grain-cleaning machine	April 27, 1858	XIII.
	Todd, Scott, & Co. (See Black, James, assignor.)			
	Todd, Scott, & Co. (See Scott, George, assignor.)			
22248	Todd, George C.	Boot's edge, keys for	Dec. 7, 1858	XVI.
20746	Todd, Hiram	Lamps, burning fluid	June 29, 1858	V.
	Todd, P. P. (See Stone, Harley, assignor.)			
	Todd, R. J. (See Randall, G. W., assignor.)			

21386	Todd, William	Logs, rolling and piling, implements for	Aug.	31, 1858	IX.
21527	Todd, William S.	Bedstead	Sept.	14, 1858	XVII.
22206	Tolhurst, G. W.	Corn-shelling machine	Nov.	30, 1858	I.
19108	Tolhurst, W. H. (See Daggett, W., assignor.)				
	Tom, John B., and Stephen D. Tucker	Lubricating journals, &c., method of, by a pen- dulum-valve arrangement.	Jan.	12, 1858	XII.
21285	Tomlinson, M.	Composition for miniature cases, &c.	Aug.	24, 1858	IV.
21387	Tower, Samuel	Roasting coffee, apparatus for	Aug.	31, 1858	V.
21708	Town, Edward and Calvin E.	Books, machine for numbering the pages of	Oct.	5, 1858	XVIII.
	Townsend, E. (See Lackey, L., assignor.)				
	Townsend, Elmer. (See Sturtevant, B. F., as- signor.)				
	Townsend, Elmer, <i>et al.</i> (See Philbrick, David, assignor.)				
	Townsend, William I. (See Batchelder, W. W., assignor.)				
20670	Toy, P. W.	Port-folio file	June	22, 1858	XVIII.
21728	Tozer, J. F., assignor to George W. Gregory	Gas-burner	Oct	5, 1858	V.
20105	Tracy, Edward H.	Breakwaters, &c., frames or caissons of	April	27, 1858	IX.
21284	Trageser, John	Vats, apparatus attached to steam coils in	Aug.	24, 1858	IV.
	Treadwell, John G. (See Pepper, Calvin, as- signor.)				
541	Treadwell, W. B.	Car-wheels, railroad	Mar.	30, 1858	Reissue.
21707	Treadwell, W. B.	Stoves and furnaces, coal, lining for	Oct.	5, 1858	V.
21785	Treat, Joseph A.	Gate, farm	Oct.	12, 1858	IX.
21036	Trimmer, B. T.	Grain, machine for cleaning	July	27, 1858	I.
21632	Trimmer, B. T.	Pump, rotary	Sept.	28, 1858	XI.
21528	Tripp, Erwin B.	Printing-press	Sept.	14, 1858	XVIII.
19052	Tripp, George W.	Dentist's operating-chair	Sept.	5, 1858	XX.
19176	Troost, Lewis, assignor to John A. M. Battle	Electro-galvanic batteries, method of registering the speed back or forward, and distances passed over by railroad trains by means of.	Jan.	19, 1858	VIII.
		Stand, embroidery and sewing	Sept.	28, 1858	XVII.
21633	Trowbridge, William H.	Harvester	May	11, 1858	I.
20227	Troxel, John S.				
	True, Lorenzo W. (See Lythe, Alston, & True.)				
21388	Truesdell, L. E.	Bridge	Aug.	31, 1858	IX.
21093	Trump, J. V.	Harvester	Aug.	3, 1858	I.



Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21786	Tucker, J. C., and L. Lanzweert.	Sugar, manufacture of.	Oct. 12, 1858.	IV.
21160	Tucker, Stephen, D. (See Tom & Tucker.)	Bit, variable boring.	Aug. 10, 1858.	XIV.
21787	Tucker, W.	Cultivator.	Oct. 12, 1858.	I.
22388	Tucker, William	Dynamometer.	Dec. 21, 1858.	VIII.
19388	Turley, William	Plough.	Feb. 16, 1858.	I.
20596	Turnbull, A. E.	Locomotive-signals.	June 15, 1858.	VI.
21389	Turner, Alexander, Redden Bess, and Hervy Sloan.	Seeding-machine.	Aug. 31, 1858.	I.
21642	Turner, Alexander, assignor to himself and Redden Bess and H. Sloan.	Drills, seed.	Sept. 28, 1858.	I.
19899	Turner, E. S. (See Stone, Draper, assignor.)	Grain-separator.	April 6, 1858.	I.
21454	Turner, Josiah, assignor to himself and E. Burke.	Trap for animals.	Sept. 7, 1858.	XXII.
20228	Turner, Rufus M.	Lasts.	May 11, 1858.	XVI.
22316	Turner, S. B. (See Ingersoll, S., assignor.)	Cultivator.	Dec. 14, 1858.	I.
990	Turner, S. S.	Compass-stand.	Feb. 23, 1858.	Design.
20106	Tuska, P. H. (See Schroeder, C.)	Register and ventilator, warm-air.	April 27, 1858.	V.
21582	Tuttle, Edward A.	Gin, cotton.	Sept. 21, 1858.	III.
20671	Tuttle, John L.	Gas-retort.	June 22, 1858.	IV.
22463	Tylee, T. (See Pratt & Tylee.)	Gas, illuminating, apparatus for generating.	Dec. 28, 1858.	IV.
20456	Tyler, C. N.	Water-wheel.	Dec. 1, 1858.	XI.
20685	Tyler, John	Riveting-machine.	June 22, 1858.	II.
22269	Tyler, P. B., W. Jones, and B. Lathrop, assignors to P. B. Tyler.	Sewing-machine.	Dec. 7, 1858.	III.
19218	Tyler, S. G., assignor to himself and G. J. Laage and J. W. Barnum.	Harvester.	Jan. 26, 1858.	I.
19053	Tyler, S. M. (See Reeve & Tyler.)	Rails for railroads.	Jan. 5, 1858.	IX.

21224	Tyrrell, Eliza C. (See Haskins & Macardle, assignors.)	Sewing-machine	Aug.	31, 1858	III.
22464	Uhlinger, W. P.	Closet for sewing-machines	Dec.	28, 1858	XVII.
21455	Uhlinger, William P.	Valves of steam-engines, operating	Sept.	7, 1858	VI.
19318	Uhry, H., and H. A. Lutgens	Belting, lap-joints for	Feb.	9, 1858	XIII.
20309	Underwood, Henry	Fishing-rods, tips for	May	18, 1858	XXII.
	Underwood, J. C., and T. J. Bargas.				
	Union Sewing Machine Co. (See Hook, A. H., assignor.)				
19593	Urquhart, W.	Life-preserving raft of buoyant mattresses	Mar.	9, 1858	VII.
20107	Ustick, S.	Brick-machine	April	27, 1858	XV.
19658	Utley, G.	Plough	Mar.	16, 1858	I.
20229	Utley, Grey	Ordnance, repeating	May	11, 1858	XIX.
20906	Vail, A. and T.	Dishes, earthen ware	July	13, 1858	XVII.
19389	Vail, Charles M.	Churn	Feb.	16, 1858	I.
	Valentine, A. A. (See Gale, W. S., assignor.)				
19960	Van Allen, C. D., and S. Avery	Soda-fountain	April	13, 1858	IV.
19803	Van Anden, William	Harvester	Mar.	30, 1858	I.
21456	Van Anden, William	Copying apparatus, portable	Sept.	7, 1858	XVIII.
20230	Van Anken, Minor	Washing-machine	May	11, 1858	XVII.
20597	Van Brunt, G. J.	Gun-carriage	June	15, 1858	XIX.
20521	Vance, D. M.	Smut-machines	June	8, 1858	XIII.
20525	Vandegrift, A. J.	Grain-separator	June	8, 1858	I.
21529	Vandemark, A. B. and M.	Fence, portable field	Sept.	14, 1858	IX.
21037	Van De Mark, C.	Fences, field, triangular brace for locking the panels of.	July	27, 1858	IX.
		Table, ironing	April	6, 1858	XVII.
19883	Vandenburg, W.	Table, ironing	Feb.	16, 1858	XVII.
19390	Vandenburg, William, and J. Harvey	Table, ironing	May	11, 1858	XVII.
20231	Vandenburg, W.	Railroad stations, machinery for supplying tenders with water at.	April	27, 1858	IX.
20108	Van Der Veer, B. M.	Hose-coupling	June	8, 1858	XI.
20532	Vander Woerd, Charles, assignor to Alvan Clark & Sons.	Straw cutter	Nov.	30, 1858	I.
22207	Vandesande, Peter, assignor to himself and Martin Vanderevert.	Paper-hangings, apparatus for hanging up and carrying off.	July	20, 1858	XVIII.
20965	Van Deventer, T.	Seeding-machine	Nov.	30, 1858	I.
		Harvester	Mar.	2, 1858	I.
22208	Van Diver, John W.				
19522	Van Doren, Isaac				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19523	Van Doren, Isaac	Harvesters, rake for	Mar. 2, 1858	I.
19594	Van Doren, Isaac	Valve for steam-engines	Mar. 9, 1858	VI.
19726	Van Doren, Isaac	Motion, reciprocating and rotary	Mar. 23, 1858	XIII.
19884	Van Doren, Isaac	Harvester	April 6, 1858	I.
22475	Van Doren, J. (See Glover, Carlos W., assignor.) Van Doren, John. (See Murray & Van Doren.) Van Doren, John, assignor to himself, B. Murray, and C. W. Glover.	Stacking agricultural products	Dec. 28, 1858	I.
19663	Van Doren, John, assignor to J. Van Doren and B. Murray.	Dumping-boxes for agricultural purposes	Mar. 16, 1858	I.
22209	Van Dusen, Washington	Propeller	Dec. 1, 1858	VII.
22317	Van Dusen, Washington	Dry-dock and marine railways, adjustable cradles for.	Dec. 14, 1858	IX.
19319	Van Duzer, Aaron	Harvester, grain and grass	Feb. 9, 1858	I.
22211	Van Geison, William H	Nail-heads, machine for plating	Nov. 30, 1858	II.
20009	Van Hoevenburg, Adam V	Iron cooking utensils, hollow cast	April 20, 1858	II.
21583	Van Houten, Charles	Planter, corn	Sept. 21, 1858	I.
19391	Van Loan, W. W	Plough	Feb. 16, 1858	I.
22139	Van Oeckelen, Cornelius J	Musical instruments, wind	Nov. 23, 1858	XVIII.
22210	Van Steenburgh, Hiram, and Joel Egnor	Ice, apparatus for hoisting and storing	Nov. 30, 1858	XXII.
22260	Van Vleck, J. P.	Saw set	Dec. 7, 1858	II.
21541	Van Vliet, Cornelius W., assignor to New England Pin Company.	Pin-sticking machine	Sept 14, 1858	II.
20232	Varney, Thomas	Lamp, vapor, burner for	May 11, 1858	V.
20310	Vascon, S., and A. Guirand	Mill, grinding	May 18, 1858	XIII.
19804	Vaoclain, James. (See Lilly, Vaoclain, & Lilly.) Vaughn, A. (See Routh & Vaughn.)	Steel and iron, tempering and hardening	Mar. 30, 1858	II.
1038	Vaughn, Horace	Stove, cooking	Aug. 10, 1858	Design.
1039	Vedder, N. S.	Stove, parlor	Aug. 10, 1858	Design.
1040	Vedder, N. S.	Stove, parlor	Aug. 10, 1858	Design.
973	Vedder, N. S., assignor to George W. Eddy	Stove	Jan. 5, 1858	Design.

1027	Vedder, N. S., assignor to George W. Eddy	Stove	July	13, 1858	Design.
1055	Vedder, N. S., assignor to George W. Eddy	Stove, cooks'	Oct.	5, 1858	Design.
982	Vedder, N. S., and Ezra Ripley, assignors to L. Potter & Co.	Stove	Jan.	12, 1858	Design.
992	Vedder, N. S., and Ezra Ripley, assignors to Lewis Potter.	Stove-plates	Feb.	23, 1858	Design.
1037	Vedder, N. S., and Ezra Ripley, assignors to N. S. Vedder.	Stove-box	Aug.	10, 1858	Design.
984	Vedder, N. S., and William L. Sanderson, assignors to George Warren.	Stove	Jan.	12, 1858	Design.
983	Vedder, N. S., and William L. Sanderson, assignors to L. Potter & Co.	Stove	Jan.	12, 1858	Design.
20747	Ventress, J. A.	Gin, cotton	June	29, 1858	III.
20233	Very, Samuel, jr.	Ships' lower sails or courses, working	May	11, 1858	VII.
19740	Vickerstaff, Joseph, assignor to Martin Landenberger.	Knitting-machine	Mar.	23, 1858	III.
19168	Vidal, Ulysses B.	Sawing machine, scroll	Jan.	19, 1858	XIV.
22398	Vincent, I. J. (See Mann, R. J., assignor.)	Plough	Dec.	21, 1858	I.
21161	Voelter, Henry	Paper-pulp, reducing wood fibres to	Aug.	10, 1858	III.
20966	Von Schwarz, J.	Steatite articles, manufacture of.	July	20, 1858	IV.
19457	Von Unwerth, Hartwich	Garden tools	Feb.	23, 1858	I.
1065	Vose, Samuel D.	Stove-plates	Nov.	23, 1858	Design.
1066	Vose, Samuel D.	Stove-plates	Nov.	23, 1858	Design.
1067	Vose, Samuel D.	Stove-plates	Nov.	23, 1858	Design.
1068	Vose, Samuel D.	Stove-plates	Nov.	23, 1858	Design.
22097	Vrooman, Daniel	Ship-building	Nov.	16, 1858	VII.
20184	Vrooman, H. S., assignor to Henry Albro.	Sawing-machine	May	4, 1858	XIV.
20832	Wade, R. M.	Trunk-protector	July	6, 1858	XVI.
20748	Wade, W. W.	Lamp-caps, method of fastening the neck-tube in.	June	29, 1858	V.
19885	Wade, William W., and Charles Burnham	Lamp-attachment	April	6, 1858	V.
23390	Wade, William W., and Francis T. Cordis.	Labels for trees, &c.	Dec.	21, 1858	XXII.
22212	Wadsworth, S. (See Mackintosh & Wadsworth.)	Guano and other fertilizers, machine for distributing.	Nov.	30, 1858	I.
20109	Wagner, J. Z. A.	Brick-machine	April	27, 1858	XV.
19054	Wainwright, H., and S. T. Williams	Planter, potato	Jan.	5, 1858	I.
21038	Wait, W. B.	Car-brake, railroad	July	27, 1858	X.
583	Waite, Charles B., and Joseph W. Sener	Coffee-pot	Aug.	10, 1858	Reissue.



Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20457	Waite, D. B.	Harvester	June 1, 1858	I.
19164	Wakefield, Charles A.	Carpet-fastener	Jan. 19, 1858	XVII.
19165	Wakefield, Charles A.	Tracks, joints of railroad	Jan. 19, 1858	IX.
21097	Waldron, M. J.	Railroad-rails	Aug. 3, 1858	IX.
20749	Wales, A.	Planter, seed.	June 29, 1858	I.
22465	Wales, Sigourney	Lamp, vapor, burner	Dec. 28, 1858	V.
19269	Wales, Thomas C.	Boots, gaiter shoes and, water-proof	Feb. 2, 1858	XVI.
21095	Walker, Andrew	Gas, apparatus for purifying	Aug. 3, 1858	IV.
22391	Walker, Andrew	Gas, apparatus for purifying	Dec. 21, 1858	IV.
19320	Walker, F. M.	Corn-husker	Feb. 9, 1858	I.
22140	Walker, G. (See Brooks & Walker.)	Sewing-needles, manufacture of	Nov. 23, 1858	III.
20833	Walker, Henry	Hulling rice, machine for	July 6, 1858	I.
21913	Walker, R. P.	Rice, machinery for pearlying, polishing, and finishing.	Oct. 26, 1858	XIII.
22042	Walker, Samuel	Loom, fringe	Nov. 9, 1858	III.
20598	Wall, Charles. (See Stewart, John, assignor.)	Skirt-hoops, clasp for	June 15, 1858	XXI.
21995	Wallace, Thomas, jr	Seeding-machine	Nov. 2, 1858	I.
20908	Walton, Joseph	Surveyor's graphodometer, automatic mechanism for operating.	July 13, 1858	VIII.
21996	Wampler, J. M.	Car-brake	Nov. 2, 1858	IX.
19458	Ward, F. G. and F. T. (See Safford, George E., assignor.)	Corn-husker	Feb. 23, 1858	I.
19268	Ward, J. N.	Railways, turning-tables for	Feb. 2, 1858	IX.
21094	Ward, L. F.	Fire-place	Aug. 3, 1858	V.
	Ward, W. C. (See Stone & Ward.)			
	Ward, W. H.			
	Warden, W. R.			
	Warder, Brokaw, & Child. (See Harding, Thomas, assignor.)			
	Warder, Brokaw, & Child. (See Brokaw, John W., assignor.)			

22318	Ware, Elijah	Valve-gear, slide of steam-engines	Dec.	14, 1858	VI.
20834	Ware, W. P.	Muff, ear, cheek, and chin	July	6, 1858	XXI.
20110	Warner, Thomas	Gas, carbonic-acid, apparatus for generating	April	27, 1858	IV.
21788	Warlick, F. C.	Steam-generator	Oct.	12, 1858	VI.
22098	Warlick, Noah	Bed-bottom, spring	Nov.	16, 1858	XVII.
20458	Warner, C.	Marble, machine for working	June	1, 1858	XV.
20750	Warner, C. A.	Bedstead	June	29, 1858	XVII.
19063	Warner, Ezra J., assignor to himself, William H. Warner, and Rufus E. Hitchcock.	Cans, instrument for opening	Jan.	5, 1858	XVII.
19596	Warner, J. B. (See Davis & Warner.)	Carpet-stretcher	Mar.	9, 1858	XVII.
20523	Warner, Joseph	Hydraulic-ram	June	8, 1858	XI.
20234	Warren, Joseph F.	Water-wheel	May	11, 1858	XI.
	Warren, Alonzo, and E. Damon, jr.				
	Warren, Fuller, & Morrison. (See Hathway, David, assignor.)				
	Warren, George. (See Vedder & Sanderson, assignors.)				
21634	Warren, Owen G.	Telegraph-cables, method of laying submarine	Sept.	28, 1858	VIII.
20835	Warren, S. W.	Steam-alarm and safety apparatus	July	6, 1858	VI.
20968	Warren, W.	Plough	July	20, 1858	I.
21709	Warren, William M.	Skirt-hoops, slides for	Oct.	5, 1858	XXI.
22043	Warth, Albin	Lathe for turning wood	Nov.	9, 1858	XIV.
	Washington, Francis B. (See Snell, Edward S., assignor.)				
20836	Washington, B. H.	Furnace	July	6, 1858	V.
2010	Waterbury, C. A.	Paper, apparatus for damping	April	27, 1858	XVIII.
21096	Waterhouse, George B. (See Bowers, M., assignor.)	Gas, apparatus for purifying	Aug.	3, 1858	IV.
	Waterhouse, John				
	Waterman, Cornelia, administratrix. (See Russell & Waterman.)				
21039	Waterman, H.	Steel rollers, making	July	27, 1858	II.
19219	Waterman, Henry	Car-springs, railroad	Jan.	26, 1858	X.
21286	Waterman, Henry	Wire and steel, tempering	Aug.	24, 1858	II.
1007	Waterman, N.	Stand, towel	May	25, 1858	Design.
20907	Waterman, N.	Refrigerator	July	13, 1858	XVII.
1032	Waterman, Nathaniel	Stands, towel	Aug.	3, 1858	Design.
1043	Waterman, Nathaniel	Roll-pans	Aug.	17, 1858	Design.
1046	Waterman, Nathaniel	Pans, bread	Aug.	31, 1858	Design.
19270	Waters, Elisha	Paper-boxes, manufacturing angular	Feb.	2, 1858	III.



No.	Name of patentee.	Invention or discovery.	Date.	Class.
20967	Waters, G., and J. W. Harnett.....	Rectifying, apparatus for .....	July 20, 1858.....	IV.
19524	Waters, Harvey .....	Scythes, manufacture of.....	Mar. 2, 1858.....	II.
19972	Waters, J. M. (See Barrett, Lee, & Waters.)			
	Watson, John F., assignor through mesne assignments to Baldwin & Co.	Watch-cases .....	April 13, 1858.....	VIII.
587	Watson, John F., assignor to William E. Baldwin and E. Bliss.	Watch-cases .....	Aug. 17, 1858.....	Reissue.
586	Watson, John F., assignor to William E. Baldwin and E. Bliss.	Watch-cases .....	Aug. 17, 1858.....	Division of reissue.
608	Watt, W. H. (See Wolfe, H. R., assignor.)			
	Watt & Burgess, through mesne assignments to William F. Ladd and Morris L. Keen.	Paper pulp, manufacture of.....	Oct. 5, 1858.....	Reissue.
19321	Watt, George.....	Plough.....	Feb. 9, 1858.....	I.
21710	Waugh, John.....	Paper hangings, machine for turning the edges of.....	Oct. 5, 1858.....	XVIII.
20979	Weatherbee, E. D., assignor to himself and L. Harding,	Meter, fluid.....	July 20, 1858.....	XI.
19900	Weatherhead, Davis L., and James T. Henry, assignors to themselves, John M. Smith, and William Campbell.	Gas-retort, portable.....	April 6, 1858.....	IV.
202	Webber, E.....			
20381	Webster, A. W.....	Shingle-machine.....	June 15, 1858.....	Add'l imp't.
20673	Webster, W.....	Doors and attachment for opening and closing.....	May 25, 1858.....	II.
20751	Webster, W.....	Vessels, masting and rigging.....	June 22, 1858.....	VII.
20672	Webster, William.....	Propellers, attaching and housing .....	June 29, 1858.....	VII.
20909	Webster, William.....	Gearing for machinery .....	June 22, 1858.....	XIII.
	Webster, William.....	Smoke-stack for steam-vessels.....	July 13, 1858.....	V.
21530	Wed, C. (See Cram & Weed.)			
19525	Weed, Charles.....	Tanks, water, mode of filling at railway-stations.....	Sept. 14, 1858.....	IX.
21392	Weeks, Abner B.....	Kiln, lime.....	Mar. 2, 1858.....	XV.
20980	Weeks, George W.....	Yokes, ox.....	Aug. 31, 1858.....	I.
22044	Weeks, J. J., assignor to Susan Weeks.....	Motion, converting rotary into reciprocating.....	July 20, 1858.....	XIII.
	Weimer, Peter L.....	Metal pipe, machine for coiling.....	Nov. 9, 1858.....	II.
19668	Weisman, Joseph.....	Graphite in reducing metals, using.....	Mar. 16, 1858.....	IX.

21162	Weldon, S. R.	Seeding-machine	Aug.	10, 1858	I.
19970	Wellman, John T., assignor to Chas. O. Thompson.	Signs, door-plate, &c.	April	13, 1858	XVIII.
21225	Wells, Alexander	Potatoes, machine for digging	Aug.	17, 1858	I.
22392	Wells, David	Stove	Dec.	21, 1858	V.
22393	Wells, Ezra	Glass furnaces and pots, manufacture of	Dec.	21, 1858	XV.
20910	Wells, H.	Saw-mill block	July	13, 1858	XIV.
19166	Wells, Hiram	Sawing-machines, circular, arrangement of devices to feed and gig back the carriage in	Jan.	19, 1858	XIV.
19727	Wells, John	Mill-bushes	Mar.	23, 1858	XIII.
21457	Wells, Jonathan W.	Alarm-lock	Sept.	7, 1858	XXII.
20179	Wells, L. T.	Printing-presses, tympan for	May	4, 1858	XVIII.
21859	Wells, Lemuel T.	Printing-presses, paper feeder for	Oct.	19, 1858	XVIII.
19167	Wells, M. D. and A.	Shingles, method of butting and pointing the bolt to be sawed into.	Jan.	19, 1858	XIV.
22141	Wells, M. D., and H. Hagans	Threshing-machine	Nov.	23, 1858	I.
19272	Wells, Morris	Belts, shifting	Feb.	2, 1858	XIII.
21789	Wells, Wallace	Engines, construction of cylinders and pistons for pumps and steam.	Nov.	2, 1858	VI.
20112	Wells, William	Mattress, folding	April	27, 1858	XVII.
20969	Welsh, Joseph	Loom	July	20, 1858	III.
21098	Welsh, Joseph	Loom	Aug.	3, 1858	III.
20752	Welte, Joseph	Fire-ladder	June	29, 1858	XXII.
19393	Wemple, Jacob, V. A., and Andrew	Harvesters, raking attachment for	June	16, 1858	I.
19530	Wendell, Isaac P.	Car-axles, railroad, boxes and journals for	Feb.	2, 1858	X.
	Wendell, Isaac P. and J. L. (See Howson, Henry, assignor.)		Mar.		
20599	Wentworth, H. S.	Fence, field	June	15, 1858	IX.
20911	Wentworth, J. B.	Leather-shaving knife	July	13, 1858	XVI.
21711	Werk, M.	Acids, fatty, apparatus for manufacturing	Oct.	5, 1858	IV.
	Wessan, Daniel B. (See Harrington, F. H., assignor.)				
20753	West, H. B., and H. F. Willson	Sewing-machine	June	29, 1858	III.
20837	West, H. E.	Bonnets and other articles of varying thickness, machinery for pressing.	July	6, 1858	III.
	West, Thomas. (See Maliphant, C., assignor.)				
	Westbrook, Herringshaw, & Parker. (See Parker, Sidney, assignor.)				
22319	Westcott, Charles S.	Lock	Dec.	14, 1858	II.
20459	Weston, C. H.	Spoke-shave	June	1, 1858	XIV.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19271	Weston, James M	Garments, machine for drafting	Feb. 2, 1858	XXI.
19392	Wetmore, J. W	Gravimotometer	Feb. 16, 1858	VIII.
20926	Wharton, J., and N. Bartlett, assignor to Joseph Wharton.	Furnace for manufacturing oxide of zinc	July 13, 1858	V.
21790	Wheat, C. (See Lewis, Dunning, & Wheat.)	Corn-eradicator	Oct. 12, 1858	XX.
22045	Wheat, Corydon	Sewing-machine	Nov. 9, 1858	III.
21100	Wheeler, Darius, and Luman Carpenter	Sewing-machine	Aug. 3, 1858	III.
21099	Wheeler, E.	Cars, sleeping, for railroads	Aug. 3, 1858	X.
20382	Wheeler, E. D	Soda-water apparatus, portable	Aug. 25, 1858	IV.
19526	Wheeler, Elbridge	Horse-shoes	May 2, 1858	II.
19971	Wheeler, J. W., assignor to himself and C. D. Williams.	Brooms, machine for manufacturing splints for	Mar. 13, 1858	XVII.
19220	Wheeler, Norman W	Engine, steam, arrangement of passages and valves for cushioning the pistons of.	Jan. 26, 1858	VI.
22320	Wheeler, Norman W	Valves of steam-engines, apparatus for operating	Dec. 14, 1858	VI.
999	Wheeler, R., and S. A. Bailey	Stove, cooks'	May 4, 1858	Design.
22321	Wheeler, Robert. (See Lovejoy & Wheeler.)	Valve gear of steam engines	Dec. 14, 1858	VI.
19669	Whetstone, John L	Boiler, steam	Mar. 16, 1858	VI.
22213	Whinfield, Henry	Car-brake, railroad	Nov. 30, 1858	X.
19394	Whipple, Asa L.	Cotton, &c., drawing	Feb. 16, 1858	III.
	Whipple, Cullen			
	Whipple, Milton D. (See Fitts & Whipple.)			
21931	Whipple, Milton D., assignor to Alfred B. Ely	Cloth, fulling in the piece, machinery for	Oct. 26, 1858	III.
21930	Whipple, Milton D., assignor to Alfred B. Ely	Cloth, felt, forming bats for	Oct. 26, 1858	III.
21932	Whipple, Milton D., assignor to Alfred B. Ely	Cotton, combing, machinery for	Oct. 26, 1858	III.
19599	Whipple, Milton D., assignor to Alfred B. Ely	Car-brake, railroad	Mar. 9, 1858	X.
19273	Whipple, Stephen M.	Mill-stones, dressing	Feb. 2, 1858	XIII.
	Whissen, Isaac	Nut-machine	Oct. 19, 1858	II.
21860	Whitaker, S. H.	Screw-cutter	Oct. 14, 1858	II.
21531	Whitaker, Thomas	Rake, hay	Sept. 5, 1858	I.
21712	Whitcomb, George			
	White, C. N. (See Mitchell, V. N., assignor.)			

19395	White, Cyrus. (See Puffer, Milton G., assignor.)	Lathes, rest attachment for -----	Feb.	16, 1858-----	XIV.
19595	White, Daniel, jr -----	Bench hook -----	Mar.	9, 1858-----	XIV.
21393	White, E. B. -----	Planter, corn -----	Aug.	31, 1858-----	I.
21458	White, Edward. (See Bishop, Gilbert, assignor.)	Brick-machine -----	Sept.	7, 1858-----	XV.
20767	White, Franklin W. -----	Heating tires, apparatus for -----	June	29, 1858-----	V.
20675	White, H. (See Calkins & White.)	Cars on the track, machine for replacing -----	June	22, 1858-----	X.
21713	White, Henry -----	Sewing-machine -----	Oct.	5, 1858-----	III.
22046	White, J. P., assignor to himself and F. Fox -----	Drills, rock -----	Nov.	9, 1858-----	IX.
21304	White, John -----	Burnishing-machine -----	Aug.	24, 1858-----	II.
22226	White, Joseph -----	Potatoes, machine for digging -----	Aug.	17, 1858-----	I.
22394	White, L. (See Bumgarner & White.)	Auger-shanks, method of attaching cutter-lips to -----	Dec.	21, 1858-----	XIV.
19819	White, L., and J. T. Bumgarner -----	Lightning-conductor -----	Mar.	30, 1858-----	VIII.
19961	White, Norman S., and Aaron Denio -----	Fire-arm, revolving -----	April	13, 1858-----	XIX.
21542	White, O., assignor to Henry C. James -----	Harrow -----	Sept.	14, 1858-----	I.
20011	White, R. -----	Girders, truss, metallic shoes for the braces of -----	April	20, 1858-----	IX.
22466	White, Samuel, assignor to Harlow Herrick -----	Tools, making edge -----	Dec.	28, 1858-----	II.
20113	White, T. B. -----	Bottles, machine for washing -----	April	27, 1858-----	XXII.
19055	White, William -----	Harvester -----	Jan.	5, 1858-----	I.
19805	White, W. B., and John A. Whitford -----	Screws, wood -----	Mar.	30, 1858-----	II.
19820	Whitehead, Jesse -----	Carriage-wheels, hubs of -----	Mar.	30, 1858-----	X.
20970	Whiting, J. M., and G. F. Wilson -----	Electro-magnetic house-alarm -----	July	20, 1858-----	VIII.
21791	Whiting, James M., assignor to himself, George F. Wilson, and Alfred Anthony.	Water-wheel and chute -----	Oct.	12, 1858-----	XI.
21287	Whitman, Alden -----	Planter, corn -----	Aug.	24, 1858-----	I.
20383	Whitman, H. -----	Composition for artificial leather -----	May	25, 1858-----	IV.
21040	Whitmarsh, Samuel -----	Boilers, steam, alarm-gauge for -----	July	27, 1858-----	V.
20674	Whitmore, Joseph -----	Lubricating engines, oil cups for -----	June	22, 1858-----	XII.
186	Whitmore, S. H. -----	Wooden surfaces, planed, machine for smoothing -----	Jan.	12, 1858-----	Add'l imp't.
19115	Whitney, Baxter D. -----	Water-wheels, chute for -----	Jan.	12, 1858-----	XI.
20524	Whitney, Chauncey B., assignor to Phillip Case -----	Lock, door -----	June	8, 1858-----	II.
20853	Whitney, Sironia -----	Faucet -----	July	6, 1858-----	XI.
20010	Whittlesey, N. P., assignor to James A. Frary -----	Bit-holder -----	April	20, 1858-----	XIV.
19322	Whittemore, David H. -----	Planting potatoes, machine for -----	Feb.	9, 1858-----	I.
	Whyte, Thomas B. -----				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22332	Wiard, Thomas, assignor to G. W. and H. W. Pitken, and W. L. P. Wiard.	Plough.....	Dec. 14, 1858.....	I.
22322	Wickersham, M. S. (See Eakins, Sanil, assignor.)	Valves of steam-engines.....	Dec. 14, 1858.....	VI.
21288	Wicks, H. D.	Corn-shelling machine.....	Aug. 24, 1858.....	I.
20533	Wicks, L. J.	Engine, steam, mode of applying the power of the.	June 8, 1858.....	VI.
21399	Widmer, J., assignor to himself and H. Gilbert.	Engines, steam, cut-off for.....	Aug. 31, 1858.....	VI.
20384	Widmer, J., assignor to himself and H. Gilbert.	Motion, changing rotary into reciprocating.....	May 25, 1858.....	XIII.
21101	Wiegand, S. L.	Registering the motion of machinery, method of.	Aug. 3, 1858.....	VIII.
19274	Wiegand, S. L.	Planter, seed.....	Feb. 2, 1858.....	I.
20913	Wiggin, Joseph H.	Clamp, floor.....	July 13, 1858.....	XIV.
19056	Wight, H. C.	Lathe for turning wood.....	Jan. 5, 1858.....	XIV.
21227	Wilcox, A. N.	Grain-separators.....	Aug. 17, 1858.....	I.
21289	Wilcox, L.	Legs, artificial, attachment to.....	Aug. 24, 1858.....	XX.
19221	Wilcox, O. D.	Harvester, corn.....	Jan. 26, 1858.....	I.
21915	Wilcox, P. (See Hadcock & Wilcox.)	Worts, apparatus for steaming.....	Oct. 26, 1858.....	IV.
19598	Wilcox, W. (See Michel, Wilcox, & Miller.)	Gin, cotton.....	March 9, 1858.....	III.
20460	Wildman, F. A. (See Hinkley, Jonas, assignor.)	Pliers, manufacture of.....	June 1, 1858.....	II.
21103	Wiley, W. Y. (See Okey, J. B., assignor.)	Stove.....	Aug. 3, 1858.....	V.
1012	Wilkins, John.	Sewing-machine stand.....	June 1, 1858.....	Design.
21585	Willard, C. W. (See Bonney & Willard.)	Skate irons.....	Sept. 21, 1858.....	XXII.
19459	Willcox, J.	Brush blocks, whitewash.....	Feb. 23, 1858.....	XVII.
21584	Williams, C. A., and R. & G. A. Morse.	Paper, &c., coloring apparatus for.....	Sept. 21, 1858.....	XVIII.
20132	Williams, C. D. (See Wheeler, J. W., assignor.)	Radiator, syphonic.....	April 27, 1858.....	V.
	Williams, Charles.			
	Williams, Charles.			
	Williams, Charles.			
	Williams, Charles, assignor to himself and Chas. J. Shepard.			

	Williams, E. M., assignor to himself and John Gable.	Lamp, vapor, burner for.....	Dec.	7, 1858.....	V.
22270	Williams, Irvin A.....	Lamp-case, locomotive.....	Nov.	16, 1858.....	V.
22099	Williams, J. B.....	Bottle-stopper.....	Feb.	9, 1858.....	XXII.
19323	Williams, L. W.....	Mill, quartz.....	April	20, 1858.....	XIII.
20012	Williams, Oly.....	Fences, wire, method of allowing for expansion and contraction of.....	Sept.	7, 1858.....	IX.
21459	Williams, R. G.....	Press, cotton.....	July	20, 1858.....	XIII.
20973	Williams, S.....	Harvester.....	June	8, 1858.....	I.
20600	Williams, S. T. (See Wainright & Williams.)				
21916	Williams, T.....	Window stop.....	Oct.	26, 1858.....	IX.
22214	Williams, Thomas E.....	Hinge for window-blinds.....	Nov.	30, 1858.....	II.
19659	Williams, William.....	Anchor.....	March	16, 1858.....	VII.
21460	Williams, Ziba.....	Butter-worker.....	Sept.	7, 1858.....	XVII.
19886	Williamson, Joshua C.....	Plough.....	April	6, 1858.....	I.
22221	Willis, N. J., assignor to Chase & Fuller.....	Shuttles, weavers', manufacture of.....	Nov.	30, 1858.....	III.
569	Willis, William W.....	Stumps, mode of extracting.....	June	22, 1858.....	Reissue.
21715	Willits, W. Irvin.....	Drill, seed.....	Oct.	5, 1858.....	I.
22215	Willmot, William.....	Cultivator.....	Nov.	30, 1858.....	I.
20188	Willmott, W. W., assignor to himself and H. F. Gardner.	Boot-trees.....	May	4, 1858.....	XVI.
19222	Willoughby, J. D.....	Planters, seed.....	Jan.	26, 1858.....	I.
21102	Willoughby, J. D.....	Planters, seed.....	Aug.	3, 1858.....	I.
20610	Willoughby, W., assignor to himself and W. H. Wizeman.	Car-wheels.....	June	15, 1858.....	X.
19528	Wills, Harry A.....	Horse-shoe machine.....	March	2, 1858.....	II.
19462	Willson, H. F. (See West & Willson.)				
19460	Willson, Thomas H. and Daniel F.....	Straw-cutter.....	Feb.	23, 1858.....	I.
21914	Wilson, A. B.....	Electro-galvanic batteries, method of lighting gas by.....	Feb.	23, 1858.....	VIII.
	Wilson, Ebenezer, Charles Wilson administrator of.	Gas, apparatus for generating.....	Oct.	26, 1858.....	IV.
	Wilson, G. F. (See Whiting & Wilson.)	Lard, method of rendering.....	Oct.	8, 1858.....	Extension.
	Wilson, George F. (See Whiting, James M., assignor.)				
20120	Wilson, Isaac. (See Haley, Wilson, & Lyon.)	Gin, cotton.....	April	27, 1858.....	III.
20601	Wilson, James N., and George W. Payne.	Dress, hulling-stone.....	June	15, 1858.....	XIII.
	Wilson, John A.....				



Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20235	Wilson, Robert.....	Nets, fly.....	May 11, 1858.....	XXII.
22323	Wilson, Robert.....	Drilling metals, machine for.....	Dec. 14, 1858.....	II.
20461	Wilson, T. H., J. E., J. F., and R. J.....	Horse-power.....	June 1, 1858.....	XIII.
19887	Wilmarth, S. W., S. L. Hay, and D. N. B. Coffin.	Propellers, coupling of, shafting for.....	April 6, 1858.....	VII.
19529	Wilton, Nathaniel.....	Lock, piano.....	March 2, 1858.....	II.
19890	Winans, H. N. (See Wood & Winans.)	Engines, steam, grates for.....	April 6, 1858.....	VI.
19888	Winans, Ross.....	Engines, steam, pistons for.....	April 6, 1858.....	VI.
19889	Winans, Ross.....	Locomotive engine.....	April 6, 1858.....	VI.
19962	Winans, Ross.....	Locomotive engine.....	April 13, 1858.....	VI.
20117	Winans, Ross.....	Locomotive boilers, furnaces of.....	April 27, 1858.....	VI.
20116	Winans, Ross.....	Locomotive engines, boilers for.....	April 27, 1858.....	VI.
20114	Winans, Ross.....	Locomotive engine boilers, fire-box of.....	April 27, 1858.....	VI.
20115	Winans, Ross.....	Locomotive boilers, fire-box of.....	April 27, 1858.....	VI.
21290	Winans, Ross.....	Locomotive engine.....	Aug. 24, 1858.....	VI.
21917	Winans, Ross and Thomas.....	Vessels, hulls of steam.....	Oct. 26, 1858.....	VII.
21918	Winans, Ross and Thomas.....	Vessels, steam.....	Oct. 26, 1858.....	VII.
21919	Winans, Ross and Thomas.....	Steamers, ocean, construction of.....	Oct. 26, 1858.....	VII.
21920	Winans, Ross and Thomas.....	Vessels, steam, connexion of steam-engines with propellers of.....	Oct. 26, 1858.....	VII.
19396	Winans, Thomas.....	Carriage-spring guard.....	Feb. 16, 1858.....	X.
22001	Winant, D. D., assignor to W. R. Winant.....	Billiard table.....	Nov. 2, 1858.....	XXII.
21559	Winant, W. R.....	Billiard cushions.....	Aug. 10, 1858.....	XXII.
20525	Windell, Thomas.....	Harvester.....	June 8, 1858.....	I.
21163	Windle, Thomas H.....	Bee-hive.....	Aug. 10, 1858.....	I.
19223	Windsor, George W.....	Car-brake, railroad.....	Jan. 26, 1858.....	X.
22261	Windsor, I. H. (See McClure & Marsh, assignors.)	Gates, farm, mode of opening and closing, by ap- proaching vehicles.....	Nov. 30, 1858.....	IX.
20676	Wingate, George.....	Paddle-wheel.....	June 22, 1858.....	VII.
21291	Wingo, C. C.....	Obstetrical chair.....	Aug. 24, 1858.....	XX.
21532	Winham, Aldridge.....	Vessels, sunken, apparatus for raising.....	Sept. 14, 1858.....	VII.

21390	Winn, James H.	Valve, safety, and pressure-gauge	Aug.	31, 1858	VI.
21237	Winslow, J. L., assignor to J. N. Winslow	Steam-cock	Aug.	17, 1858	VI.
19531	Winslow, John B.	Spinning-machines, machinery for regulating the supply of roving to	Mar.	2, 1858	III.
20121	Winter, Benjamin	Mill, corn and cobb	April	27, 1858	XIII.
21643	Wintringham, David L. (See Chichester, Lewis J., assignor.)	Roofing-machine	Sept.	28, 1858	IX.
19579	Wise, William	Trenching-plough	Mar.	9, 1858	IX.
20914	Wisner, A. J.	Boot-trees	July	13, 1858	XVI.
20526	Witherle, J. B.	Sash-fastener	June	8, 1858	II.
21714	Withers, A. Q.	Gin, cotton	Oct.	5, 1858	III.
22324	Withers, John	Fire-escape ladder	Dec.	14, 1858	V.
22222	Withington, Solander	Mortises. dove-tail, machine for cutting	Nov.	30, 1858	XIV.
19399	Witting, F. W.	Press, cotton	Feb.	16, 1858	XII.
19109	Witting, L.	Creepers	Jan.	12, 1858	XXII.
	Wizeman, W. H. (See Willoughby, W., assignor)				
21228	Wolfe, Daniel	Printing-press	Aug.	17, 1858	XVIII.
21729	Wolfe, H. R., assignor to himself, David Staples, and W. H. Watson.	Saw-gummer	Oct.	5, 1858	II.
19728	Wolfsberger, Frederic	Meat-cutting machine	Mar.	23, 1858	XVII.
20462	Wolff, S.	Millstone dress	June	1, 1858	XIII.
20972	Wolff, S.	Mill, flouring	July	20, 1858	XIII.
20838	Wolle, Francis	Paper bags, machine for making	July	6, 1858	XVIII.
	Wombaugh, Brothers, & Co. (See Russell, E. T., assignor.)				
	Wombaugh, M. M. (See Abernethy & Wombaugh.)				
	Wombaugh, Mahlon M. (See Feegeer, Daniel H., assignor.)				
20677	Wood, A. A.	Cop-waste, machine for picking	June	22, 1858	III.
21586	Wood, A. H.	Gas-burner	Sept.	21, 1858	V.
642	Wood, A. H., assignor to I. R. Foster	Gas-burner	Dec.	28, 1858	Reissue.
19057	Wood, Adam	Engine, steam, oscillating	Jan.	5, 1858	VI.
	Wood, Charles L. (See Wise, Emanuel, assignor.)				
22052	Wood, George, and John King, assignors to themselves and William Lawrence.	Dredging-crane	Nov.	9, 1858	IX.



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19397	Wood, Joseph	Switch, railroad safety.	Feb. 16, 1858	IX.
19601	Wood, Joseph, and H. N. Winans	Boiler, steam	Mar. 9, 1858	VI.
20395	Wood, O. T., assignor to Thomas R. Wood	Casting faucets	May 25, 1858	II.
20118	Wood, S. W.	Metallic nuts, making	April 27, 1858	II.
20602	Wood, S. W.	Hat-bodies, machine for sizing	June 15, 1858	III.
19276	Wood, Simeon.	Pumps, mode of operating pistons of.	Feb. 2, 1858	XI.
1002	Wood, Stephen W. (See Bills & Wood.)			
22047	Wood, T. H., J. E. Roberts, and H. S. Hubbell	Stove, cooks'	May 11, 1858	Design.
19275	Wood, Timothy C.	Grubbing-machine.	Nov. 9, 1858	IX.
20119	Wood, Twentyman.	Shingle-machines, method of feeding the bolt in.	Feb. 2, 1858	XIV.
22468	Wood, W. A.	Harvesters, raking and delivering attachment to.	April 27, 1858	I.
21475	Wood, W. A.	Harvesters, cutting apparatus for.	Dec. 28, 1858	I.
19806	Wood, W. S. (See Shell, A. N., assignor.)			
20527	Wood, William W. W., assignor to John Rice	Governor for steam-engines.	Sept. 14, 1858	VI.
20385	Woodbury, J. A. (See Thayer, H. H., assignor.)			
21461	Woodbury, James A.	Tonguing and grooving, rotary cutters for.	March 30, 1858	XIV.
20014	Woodbury, James A.	Planing-machine.	June 8, 1858	XIV.
22467	Woodman, Horace.	Drill, power and hand.	May 25, 1858	II.
19461	Woodruff, J. B.	Sewing-machine.	Sept. 7, 1858	III.
19398	Woodruff, Samuel.	Planting hoe, seed	April 20, 1858	I.
22395	Woods, Oliver E.	Life-preserving trunk	Dec. 28, 1858	VII.
21462	Woods, S. A. (See Thayer, H. H., assignor.)			
19807	Woodward, Abijah.	Shoe-peg machine.	Feb. 23, 1858	XVI.
19892	Woodward, Calvin, and George M.	Hydraulic valve.	Feb. 16, 1858	XI.
19600	Woodward, J. A.	Smut-machine.	Dec. 21, 1858	XIII.
	Woodward, Jabez M.	Life-boat constructed of mattresses.	Sept. 7, 1858	VII.
	Woodward, Joel.	Mill.	March 30, 1858	XIII.
	Woodward, Joel.	Bolting, dusting, and separating the ground material, machinery for.	April 6, 1858	XIII.
	Woodworth, Senter, and Goss. (See Sherwood, Allen.)			
	Woodworth, Oliver, jr., and John D. Page.	Fibrous materials, machine for picking.	March 9, 1858	III.

21792	Woody, John	Harvester	Oct.	12, 1858	I.
19891	Woolman, John	Bolt, door	April	6, 1858	II.
19227	Wooster, G. H. (See Peck, Russell.) Worcester, L. (See Carlisle & Worcester.) Worden, Leonard J., assignor to himself and Edward L. Swartwout.	Boot-legs, method of securing straps upon	Jan.	26, 1858	XVI.
20013	Work, Thomas K	Curtain-fixtures	April	20, 1858	XVII.
21104	Worth, I. G.	Shoe-pegs, machine for manufacturing	Aug.	3, 1858	XVI.
20236	Worthen, W. E.	Shutters, metallic rolling	May	11, 1858	IX.
22476	Wrangle, Moses, assignor to Hunter, Keller, & Co.	Iron, cast, mercury bottle	Dec.	28, 1858	II.
21716	Wright, Algernon S.	Marks on cloth, &c., trade, machine for stamping	Oct.	5, 1858	XXII.
21391	Wright, D. B., and L. Sawyer	Carriage bows, attaching the props of	Aug.	31, 1858	X.
20839	Wright, E. S.	Bedstead-fastening	July	6, 1858	XVII.
22325	Wright, Edward S., and Theodore P. Gould	Cannon, breach-loading	Dec.	14, 1858	XIX.
21229	Wright, George F. (See Burt & Wright.)	Gas-burner	Aug.	17, 1858	IV.
19527	Wright, W.	Alarm, burglar's	March	2, 1858	XXII.
20754	Wright, William D.	Plates, use of dentists' pattern	June	29, 1858	XX.
20912	Wright, William M.	Dumping coal-buckets, self.	July	13, 1858	IX.
19664	Wust, John	Looms, power, set-off motion for	Mar.	16, 1858	III.
21292	Wyllys, Newell, assignor to himself and Charles Collins.	Blind-slats, machine for setting the staples in	Aug.	24, 1858	IX.
21293	Wyman, James	Lock	Aug.	24, 1858	II.
21041	Wymblad, H.	Drawing instruments	July	27, 1858	VIII.
21861	Wythes, W. W.	Joiner's square, device for adjusting to a right-angle the.	Oct.	19, 1858	XIV.
22048	Yale, Linus, jr.	Lock	Nov.	9, 1858	II.
22469	Yates, Gilbert	Fastener, door	Dec.	28, 1858	II.
20840	Yates, Henry	Boilers, steam, furnaces of	July	6, 1858	VI.
19463	Yates, J. J. (See Nevins & Yates.)	Harvesters	Feb.	23, 1858	I.
21105	Yeakel, Benjamin	Electro-magnetic engine	Aug.	3, 1858	VIII.
21042	Yeiser, F.	Batter-machine	July	27, 1858	XVII.
22002	Yerby, E.	Vessels, rudders for	Nov.	2, 1858	VII.
19169	Yerkes, S., assignor to himself and George Yerkes.	Collar and hames, horse, combined	Jan.	19, 1858	XVI.
20122	Yocum, S. H. (See O'Byrne & Yocum.)	Plough, gang	April	27, 1858	I.
20123	Yost, G. W. N.	Washing-machine	April	27, 1858	XVII.
21463	Yost, Henry	Bullet-machine	Sept.	7, 1858	XIX.
	Young, Calvin				



*Patentees of inventions and designs, 1858.*

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21635	Young, Charles A. & Solomon W	Wire springs for furniture, machine for making---	Sept. 28, 1858	II.
22142	Young, Edward	Umbrellas, parasols and	Nov. 23, 1858	XXI.
20974	Young, George, jr.	Clothes-rack	July 20, 1858	XVII.
22326	Young, J. E. (See Darby & Young.)			
21587	Young, Joseph	Harvesters, raking attachment to	Dec. 14, 1858	I.
21917	Young, McClintock, jr.	Harvester	Sept. 21, 1858	I.
	Young, Moses M., assignor to himself, Harvey T. Litchfield, and Joseph G. Hamblin.	Gauges, steam spring pressure	Jan. 19, 1858	VI.
21921	Young, Samuel S.	Arithmetical proof-rule	Oct. 26, 1858	VIII.
20915	Young, W. J.	Surveyor's tripod, head for	July 13, 1858	VIII.
20603	Younglove, M. C.	Drill, seed	June 15, 1858	I.
20237	Zeigler, George W.	Car-brake, railroad	May 11, 1858	X.
21043	Zeng, Henry	Pump	July 27, 1858	XI.
19602	Zimmerman, Charles M.	Drums, military, construction of	Mar. 9, 1858	XVIII.
21997	Zuern, Daniel, and L. L. Bevan	Press, hand, self-inking	Nov. 2, 1858	XVIII.
20015	Zwart, B.	Kiln, lime	April 20, 1858	XV.

CLASS I—AGRICULTURE, including implements and operations.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19520	Bee-hive	Solomon Stansberry	Knoxville, Tenn.	Mar. 2, 1858.
19931	Bee-hive	K. P. Kidder	Burlington, Vt.	April 13, 1858.
20202	Bee-hive	E. P. French	Nashua, N. H.	May 11, 1858.
20417	Bee-hive	P. J. Furlong	Galen, N. Y.	June 1, 1858.
20508	Bee-hive	Thomas Prosser	Birmingham, Pa.	June 8, 1858.
21163	Bee-hive	Thomas H. Windle	Wagontown, Pa.	Aug. 10, 1858.
21912	Bee-hive	Peter Taltavull	Washington, D. C.	Oct. 26, 1858.
22030	Bee-hive	Ebenezer W. Phelps	Elizabeth, N. J.	Nov. 9, 1858.
22059	Bee-hive	Asa Blood, sr.	Norfolk, Va.	Nov. 16, 1858.
22309	Bee-hive	Joseph D. Sanderson	Stetson, Me.	Dec. 14, 1858.
19288	Cards for currying cattle.	C. S. Dickerman	Lansingburgh, N. Y.	Feb. 9, 1858.
19034	Churn	Silas F. Lefler	Racine, Wis.	Jan. 5, 1858.
19117	Churn	Michael L. Bauder	Elyria, Ohio	Jan. 19, 1858.
19310	Churn	Enos Page	Streetsboro', Ohio	Feb. 9, 1858.
19334	Churn	H. D. Baker	Pittstown Corners, N. Y.	Feb. 16, 1858.
19389	Churn	Charles M. Vail	Susquehanna Depot, Pa.	Feb. 16, 1858.
19782	Churn	John A. Jordan	Shelbyville, Tenn.	Mar. 30, 1858.
19828	Churn	Harvey Brown	New York, N. Y.	April 6, 1858.
20025	Churn	James Macnish	Berlin, Wis.	April 20, 1858; reissued Nov 30, 1858.
20062	Churn	T. B. Harper	Xenia, Ohio.	April 27, 1858.
20089	Churn	G. S. Rarey	Columbus, Ohio.	April 27, 1858.
20189	Churn	William Brown	Duncannon, Pa.	May 11, 1858.
20740	Churn	W. H. Tambling	Berlin, Wis.	June 29, 1858.
20730	Churn	Alfred Rose	Penn Yan, N. Y.	June 29, 1858.
20803	Churn (A)	James Macnish	Berlin, Wis.	July 6, 1858.
20804	Churn (B)	James Macnish	Berlin, Wis.	July 6, 1858.
20898	Churn	N. H. Sherburne	Compton, Ill.	July 13, 1858.
20878	Churn	James Hatfield and H. M. Goldsmith	Falmouth, Ind. Burlington, Iowa	July 13, 1858.



*List of patents for inventions, 1858—Class I.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21010	Churn	M. R. Marcell	Dansville, N. Y.	July 27, 1858.
21176	Churn	James S. Appleton	White River Junction, Vt.	Aug. 17, 1858.
21374	Churn	John F. Smith and Wightman Brown	Galen, N. Y.	Aug. 31, 1858.
21501	Churn	Daniel Johnson	Rose, N. Y.	Sept. 14, 1858.
21575	Churn	Andrew Ralstone	New York, N. Y.	Sept. 21, 1858.
21637	Churn	George K. Farrington, assignor to D. B. Tiffany.	West Middletown, Pa.	Sept. 28, 1858.
21871	Churn	James H. Bump	Xenia, Ohio	Oct. 26, 1858.
22093	Churn	Charles W. Stafford	Morris, N. Y.	Nov. 16, 1848.
22090	Churn	Harry and Royal V. Robie	Burlington, Iowa.	Nov. 16, 1858.
20545	Churns, operating	A. G. Brush	Eaton, N. Y.	June 15, 1858.
22022	Churns, operating	Joseph Forsyth	Great Bend, Pa.	Nov. 9, 1858.
21221	Churns, &c., operating	Moses Swan	Wheeling, Va.	Aug. 17, 1858.
20891	Coffee, apparatus for cleaning and polishing	William Newell	Potter Hill, N. Y.	July 13, 1858.
19142	Corn-husker	John D. Heaton and W. A. Clark	Philadelphia, Pa.	Jan. 19, 1858.
19325	Corn-husker	Abbott R. Davis, assignor to himself and B. D. Moody.	Dixon, Ill.	Feb. 9, 1858.
19326	Corn-husker	Daniel Lombard, assignor to himself and George F. Richardson.	East Cambridge, Mass.	Feb. 9, 1858.
19320	Corn-husker	F. M. Walker	Boston, Mass.	Feb. 9, 1858.
19458	Corn-husker	L. F. Ward	Greensboro', N. C.	Feb. 23, 1858.
19512	Corn-husker	Warner Pickett and Andrew Hills	Marathon, N. Y.	Mar. 2, 1858.
19552	Corn-husker	Joseph and James L. Fagan	Naugatuck, Conn.	Mar. 9, 1858.
20163	Corn-husker	Charles N. Lewis	San Antonio, Texas.	May 4, 1858.
20223	Corn-husker	Daniel C. Smith	Seneca Falls, N. Y.	May 11, 1858.
20253	Corn-husker	Joseph Cawthra	Tecumseh, Mich.	May 18, 1858.
20360	Corn-husker	B. B. Meacham	Rochester, N. Y.	May 25, 1858.
20568	Corn-husker	Lucius Leavenworth	Ridleysville, Fla.	June 15, 1858.
20637	Corn-husker	Burton Hazen	Trumansburgh, N. Y.	June 22, 1858.
20653	Corn-husker	L. R. Mears	Cincinnati, Ohio	June 22, 1858.
			South Abington, Mass.	

20849	Corn-husker	L. A. Grover, assignor to himself and N. T. Spear.	Roxbury, Mass.	July 6, 1858.
21363	Corn-husker	C. J. C. Peterson	Davenport, Iowa.	Aug. 31, 1858.
21522	Corn-husker	N. T. Spear	Boston, Mass.	Sept. 14, 1858.
22440	Corn, machine for picking	S. W. May	Galesburg, Ill.	Dec. 28, 1858.
19160	Corn-sheller	Jeremiah P. Smith	Hummelstown, Penn.	Jan. 19, 1858.
19253	Corn-sheller	Joseph R. Lindner	Cincinnati, Ohio.	Feb. 2, 1858.
19603	Corn-sheller	Daniel G. Greene, assignor to himself and George H. Greene.	North Bridgewater, Mass.	Mar. 9, 1858.
19809	Corn-sheller	Peter Bergen, assignor to Jane Ann Bergen.	New York, N. Y.	Mar. 30, 1858.
19862	Corn-sheller	Thomas W. McFarlan and	Salem, Ohio.	April 6, 1858.
19915	Corn-sheller	Lewis H. Davis	Westchester, Penn.	}
20003	Corn-sheller	A. B. Davis	Philadelphia, Penn.	
20266	Corn-sheller	Elmon Parker	Baltimore, Md.	April 13, 1858.
20650	Corn-sheller	Ray Green	Cussawago, Penn.	April 20, 1858.
20831	Corn-sheller	W. H. Main	Liverpool, Ohio.	May 18, 1858.
21174	Corn-sheller	P. P. Taft	Taftsville, Vermont	June 22, 1858.
21594	Corn-sheller	Calvin Adams	Pittsburg, Penn.	July 6, 1858.
21288	Corn-shelling machine	A. Adams	Sandwich, Ill.	Aug. 17, 1858.
22206	Corn-shelling machine	L. J. Wicks	Racine, Wis.	Sept. 28, 1858.
21254	Corn-stalks in the field, machine for cutting up.	George W. Tolhurst	Liverpool, Ohio.	Aug. 24, 1858.
19651	Corn-stalks, machine for cutting and crushing.	Francis M. Green	Sullivan, Ill.	Nov. 30, 1858.
19311	Cotton-fields, machine for cutting brush from.	Henry and Amos Hersch.	Lancaster county, Penn.	Aug. 24, 1858.
21667	Cotton-scraper	Elias Peck	Canton, Ill.	Mar. 9, 1858.
19151	Cranberry-separator.	C. A. Gaines	Watson, Miss.	Feb. 9, 1858.
19248	Cultivator	David Perham	Tyngsboro', Mass.	Oct. 5, 1858.
19584	Cultivator	James Houck	Clinton, Indiana	Jan. 19, 1858.
19742	Cultivator	D. B., S., and L. Rogers.	Pittsburg, Penn.	Feb. 2, 1858.
20207	Cultivator	Joseph Banks	Dadeville, Ala.	Mar. 9, 1858.
20260	Cultivator	L. W. Kelley	Brunswick, Ohio.	Mar. 30, 1858.
20712	Cultivator	John Endsley and E. Fletcher.	Abington, Indiana.	May 11, 1858.
20798	Cultivator	W. A. Hopkins	Vicksburg, Miss.	May 18, 1858.
21055	Cultivator	D. C. Hubbard	Okolona, Miss.	June 29, 1858.
21128	Cultivator	William Adams	Detroit, Mich.	July 6, 1858.
21170	Cultivator	N. W. Fraser and A. J. McLellan.	Laporte, Indiana.	Aug. 3, 1858.
21377	Cultivator	Robert Sawyer, assignor to Wm. G. Brown.	Wales, Maiae.	Aug. 10, 1858.
21428	Cultivator	Nathaniel S. Smith	Buffalo, N. Y.	Aug. 10, 1858.
21625	Cultivator	Israel Long	Terre Haute, Indiana.	Aug. 31, 1858.
		T. W. Poole	Brunswick, Ohio.	Sept. 7, 1858.
				Sept. 28, 1858.



List of patents for inventions, 1858.—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21690	Cultivator	B. S. Morgan	Delhi, Iowa	Oct. 5, 1858.
21739	Cultivator	C. H. and S. E. Carrington	Weymouth, Ohio	Oct. 12, 1858.
21787	Cultivator	William Tucker	Blackstone, Mass	Oct. 12, 1858.
21763	Cultivator	Thomas M. Lee	Broad Ford, Va	Oct. 12, 1858.
21857	Cultivator	Thomas S. Stevens	Pepperell, Mass	Oct. 19, 1858.
22215	Cultivator	William Willmot	Wilmington, Del	Nov. 30, 1858.
22316	Cultivator	Thomas Turner	Marysville, Ohio	Dec. 14, 1858.
22437	Cultivator	Howard Mann	East Attleboro' Mass.	Dec. 28, 1858.
20823	Cultivator, cotton	Asberry Smith	Ashville, Ala.	July 6, 1858.
20605	Cultivator, rotary	E. T. Bussell, assignor to Wambaugh Brothers & Co.	Shelbyville, Indiana	June 15, 1858.
19234	Cultivator-teeth	Moses Bucklin	Grafton, N. H.	Feb. 2, 1858.
21212	Drill, grain	Adam Pritz	Dayton, Ohio	Aug. 17, 1858.
21736	Drill, grain	Samuel Binkley	Dublin, Indiana	Oct. 12, 1858.
19633	Drill, seed	Robert Hamilton	Franklin, Indiana	Mar. 16, 1858.
19617	Drill, seed	C. B. Brown	Alton, Illinois	Mar. 16, 1858.
19808	Drill, seed	Geo. S. Ball, assignor to Benjamin Kuhns	Dayton, Ohio	Mar. 30, 1858.
19924	Drill, seed	John Harris	Shippensburg, Penn	April 13, 1858.
20377	Drill, seed	J. C. Stevens	Lee, Mass	May 25, 1858.
20003	Drill, seed	M. C. Younglove	Cleveland, Ohio	June 15, 1858.
20946	Drill, seed	Jacob W. Kirk	Rising Sun, Indiana	July 20, 1858.
21316	Drill, seed	O. H. S. Brumfield	Centrefield, Indiana	Aug. 31, 1858.
21642	Drill, seed	Alexander Turner, assignor to himself, Redden Bess, and H. Sloane.	Franklin, Indiana	Sept. 28, 1858.
21715	Drill, seed	W. Irvin Willits	Milton, Indiana	Oct. 5, 1858.
21018	Drill, wheat	E. O. Bryden	La Fayette, Ind	July 27, 1858.
19663	Dumping-boxes for agricultural purposes	John Van Doren, assignor to J. Van Doren and B. Murray.	Farm Ridge, Ill	Mar. 16, 1858.
22076	Feed-boxes for animals, automatic	Albert Goodyear, 2d	Hamden, Conn	Nov. 16, 1858.
19457	Garden tools	Hartwick Von Unwerth	Salem, Mass	Feb. 23, 1858.
21700	Grafts, root, machine for cutting	Sidney S. Rockwell	Vermontville, Mich	Oct. 5, 1858.
20196	Grain-cleaning machine	John De Rush	St. Mary's, Ohio	May 11, 1858.

20425	Grain-cleaning machine	Marquis L. Hall	Bridgeport, Conn.	June 1, 1858.
20899	Grain-cleaning machine	N. H. Sherburne	Campton, Ill	July 13, 1858.
21662	Grain-cleaning machine	W. T. Fisher	Cleveland, Tenn	Oct. 5, 1858.
19643	Grain-cradle	John Leidy	Lamar, Penn.	Mar. 16, 1858.
20809	Grain in bundles or sheaves, mode of securing	John P. Manny	Rockford, Ill	July 6, 1858.
20581	Grain, machine for cleaning	William Partridge, jr, and G. W. Shaw	Ellicott's Mills, Md	June 15, 1858.
20923	Grain, machine for cleaning	William H. Orr, assignor to William M. Griffiths & Co.	Martin's Ferry, Ohio	July 13, 1858.
21036	Grain, machine for cleaning	B. T. Trimmer	Rochester, N. Y	July 27, 1858.
19140	Grain-separator	Ashman Hall	Dansville, N. Y	Jan. 19, 1858.
19899	Grain-separator	Josiah Turner, assignor to himself and E. Burke.	Sunapee, N. H.	April 6, 1858.
19877	Grain-separator	Francis Schunks	York, Penn	April 6, 1858.
20522	Grain-separator	A. J. Vandegrift	Lexington, Ky	June 8, 1858.
20735	Grain-separator	H. H. Seely and P. Griswold	Hudson, Mich	June 29, 1858.
21227	Grain-separator	L. Wilcox	Hudson, Mich	Aug. 17, 1858.
21383	Grain-separator	John D. Tift	Cuyahoga, Ohio	Aug. 31, 1858.
21877	Grain-separator	Aaron Foster	Quincy, Ill	Oct. 26, 1858.
21945	Grain-separator	William R. Cox	Delhi, Iowa	Nov. 2, 1858.
21573	Grass, &c., machine for cutting	Cyrus H. McCormick	Chicago, Ill	Sept. 21, 1858.
22212	Guano and other fertilizers, machine for distributing.	Elijah Wagner	Westminster, Md	Nov. 30, 1858.
19281	Harrow	Jabez Robins, assignor to himself, Daniel K. Haines, and S. Richardson.	Leominster, Mass	Feb. 2, 1858.
19259	Harrow	Samuel J. Orange	Grayville, Ill	Feb. 2, 1858.
19489	Harrow	Orman Coe	Port Washington, Wis	Mar. 2, 1858.
19494	Harrow	William De Witt and O. D. Barrett	Cleveland, Ohio	Mar. 2, 1858.
20195	Harrow	J. C. Conkey	Washington, Ohio	May 11, 1858.
20325	Harrow	V. M. Chaffee	Grayville, Ill	May 25, 1858.
20410	Harrow	John S. Davis	Washington, Ohio	June 1, 1858.
21113	Harrow	Addison Berdan	Macon, Mich	Aug. 10, 1858.
21153	Harrow	Jeremiah Routh and Abel Vaughn	Grayville, Ill	Aug. 10, 1858.
21269	Harrow	Daniel B. Neal	Mount Gilead, Ohio	Aug. 24, 1858.
21403	Harrow	David C. Ayres	Lumberland, N. Y	Sept. 7, 1858.
21439	Harrow	Samuel J. Orange and George Beidelman	Grayville, Ill	Sept. 7, 1858.



List of patents for inventions, 1858—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21542	Harrow	Samuel White, assignor to Harlow Herrick.	Penfield, Ohio	Sept. 14, 1858.
19365	Harrow, revolving.	W. A. Horral and R. G. Sirwell.	Grayville, Ill.	Feb. 16, 1858.
21265	Harrow, rotary	William H. Main.	Liverpool, Ohio.	Aug. 24, 1858.
21580	Harrow, rotary	Salathiel S. Thompson	Heller's Corners, Ind.	Sept. 21, 1858.
21577	Harrow, rotary	Jabez Robins.	Boston, Mass.	Sept. 21, 1858.
22026	Harrow, rotary	William H. Main	Liverpool, Ohio.	Nov. 9, 1858.
19055	Harvester	Jesse Whitehead.	Manchester, Va.	Jan. 5, 1858.
19137	Harvester	Ezra Emmert	Franklin Grove, Ill.	Jan. 19, 1858.
19218	Harvester	Samuel W. Tyler	Greenwich, N. Y.	Jan. 26, 1858.
19298	Harvester	M. G. Hubbard.	Peun Yan, N. Y.	Feb. 9, 1858.
19377	Harvester	Frederick Nishwitz	Brooklyn, N. Y.	Feb. 16, 1858.
19344	Harvester	Albert D. Briggs.	Springfield, Mass.	Feb. 16, 1858.
19447	Harvester	Charles Roberts	Livonia, N. Y.	Feb. 23, 1858.
19411	Harvester	George S. Curtis.	Chicago, Ill.	Feb. 23, 1858.
19463	Harvester	Benjamin Yeakel.	Allentown, Penn.	Feb. 23, 1858.
19422	Harvester	Charles Howell.	Cleveland, Ohio.	Feb. 23, 1858.
19442	Harvester	H. A. Parkhurst.	Fairfield, N. Y.	Feb. 23, 1858.
19522	Harvester	Isaac Van Doren.	Somerville, N. J.	Mar. 2, 1858.
19486	Harvester	Willis L. Childs	Piermont, N. Y.	Mar. 2, 1858.
19483	Harvester	J. S. Butterfield	Philadelphia, Pa.	Mar. 2, 1858.
19590	Harvester	H. C. Smith	Cleveland, Ohio.	Mar. 9, 1858.
19703	Harvester	J. M. Long, P. Black, and R. Allstatter.	Hamilton, Ohio.	Mar. 23, 1858.
19803	Harvester	William Van Anden.	Poughkeepsie, N. Y.	Mar. 30, 1858.
19749	Harvester	George E. Chenoweth.	Baltimore, Md.	Mar. 30, 1858.
19884	Harvester	Isaac Van Doren.	Somerville, N. J.	April 6, 1858.
19864	Harvester	W. K. Miller.	Canton, Ohio.	April 6, 1858.
19919	Harvester	D. W. Entri kin and L. H. Davis.	West Chester, Penn.	April 13, 1858.
19999	Harvester	Henry Marcellus.	Amsterdam, N. Y.	April 20, 1858.
20050	Harvester	R. Dutton	Dayton, Ohio.	April 27, 1858.
20080	Harvester	J. B. McCormick	Versailles, Ky.	April 27, 1858.
20152	Harvester	R. H. Fisher	Claremont, N. H.	May 4, 1858.
20180	Harvester. (No. 1)	Lewis Miller, assignor to C. Aultman & Co.	Canton, Ohio.	May 4, 1858.

20181	Harvester.	(No. 2)	Lewis Miller, assignor to C. Aultman & Co.	Canton, Ohio.	May	4, 1858.
20182	Harvester.	(No. 3)	Lewis Miller, assignor to C. Aultman & Co.	Canton, Ohio.	May	4, 1858.
20221	Harvester		Oren Stoddard	Busti, N. Y.	May	11, 1858.
20225	Harvester		H. C. Smith	Cleveland, Ohio.	May	11, 1858.
20227	Harvester		John S. Troxel	Mount Pleasant, Penn	May	11, 1858.
20191	Harvester		C. B. Brown	Alton, Ill.	May	11, 1858.
20271	Harvester		Martin Hallenbeck	Albany, N. Y.	May	18, 1858.
20272	Harvester		Martin Hallenbeck	Albany, N. Y.	May	18, 1858.
20334	Harvester		J. H. Conklin	Rockford, Ill.	May	25, 1858.
20394	Harvester		W. H. Seymour and H. Pease, assignors to W. H. Seymour and Dayton S. Morgan.	Brockport, N. Y.	May	25, 1858.
20416	Harvester		A. B. J. Flowers	Greenfield, Ind.	June	1, 1858.
20457	Harvester		D. B. Waite	Spring Water, N. Y.	June	1, 1858.
20525	Harvester		Thomas Windell	New Albany, Ind.	June	8, 1858.
20600	Harvester		S. Williams	Stockton, Cal.	June	15, 1858.
20593	Harvester		S. H. Smith	Magnolia, Ill.	June	15, 1858.
20719	Harvester		William F. Ketchum	Buffalo, N. Y.	June	29, 1858.
20813	Harvester		Jeremiah Mitchell	Gosport, N. Y.	July	6, 1858.
20806	Harvester		John P. Manny	Rockford, Ill.	July	6, 1858.
21093	Harvester		J. V. Trump	Somerville, N. J.	Aug.	3, 1858.
21125	Harvester		M. E. Ellsworth	Hudson, Ohio	Aug.	10, 1858.
21401	Harvester		R. L. Allen	New York, N. Y.	Sept.	7, 1858.
21587	Harvester		McClintock Young, jr.	Frederick, Md.	Sept.	21, 1858.
21612	Harvester		David S. McNamara	North Hoosick, N. Y.	Sept.	28, 1858.
21681	Harvester		George F. & Moses Jerome	Mineola, N. Y.	Oct.	5, 1858.
21792	Harvester		John Woody	Mount Vernon, Ind.	Oct.	12, 1858.
21741	Harvester		George E. Cooper	Baltimore, Md.	Oct.	12, 1858.
21804	Harvester		John K. Harris	Allensville, Ind.	Oct.	12, 1858.
21827	Harvester		Rosewell H. Fisher	Claremont, N. H.	Oct.	19, 1858.
21854	Harvester		Joseph D. Smith	Lancaster, Ohio	Oct.	19, 1858.
21993	Harvester		Charles T. Stetson	Amherst, Mass	Nov.	2, 1858.
22032	Harvester		Hosea W. Read	West Windsor, Vt.	Nov.	9, 1858.
22084	Harvester		James S. Marsh	Lewisburg, Pa.	Nov.	16, 1858.
22077	Harvester		Stephen Hull	Poughkeepsie, N. Y.	Nov.	16, 1858.
22163	Harvester		Nicholas Clute	Dunnsville, N. Y.	Nov.	30, 1858.
22203	Harvester		William & Thomas Schnebly	Hackensack, N. J.	Nov.	30, 1858.
22237	Harvester		Henry Opp	Belleville, Ill.	Dec.	7, 1858.
22312	Harvester		Oren Stoddard	Busti, N. Y.	Dec.	14, 1858.
22345	Harvester		Chester Bullock	Jamestown, N. Y.	Dec.	21, 1858.



List of patents for inventions, 1858—Class II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22341	Harvester	J. A. Barrington	Fredericktown, Ohio	Dec. 21, 1858.
22074	Harvester, binding attachment to	William Grey	Nicholsville, Ohio	Nov. 16, 1858.
20215	Harvester, binding device for	George Notman	Deerfield, Ohio	May 11, 1858.
19221	Harvester, corn	L. C. Wilder	Lexington, N. C.	Jan. 26, 1858.
19716	Harvester, corn	Thomas A. Risher	Circleville, Ohio	Mar. 23, 1858.
19822	Harvester, corn	J. V. Adair	Varick, N. Y.	April 6, 1858.
20067	Harvester, corn	Adam Humberger	Somerset, Ohio	April 27, 1858.
20645	Harvester, corn	Darius Landon	Wyandotte, Ohio	June 22, 1858.
20628	Harvester, corn	R. B. Corbin & James Morris	St. Augustine, Ill.	June 22, 1858.
21031	Harvester, corn	Albert Stoddard	Tecumseh, Mich.	July 27, 1858.
21516	Harvester, corn	Isaac Reamer & Henry Miller	Conrad's Store, Va.	Sept. 14, 1858.
22259	Harvester, corn	Bronson Murray and John Van Doren	Ottawa, Ill.	Dec. 7, 1858.
20066	Harvester, cotton	M. Hosford & J. C. Avery	Farm Ridge, Ill.	April 27, 1858.
19360	Harvester, cutter for	John Gore	Macon, Miss.	Feb. 10, 1858.
21499	Harvester, cutting apparatus for	Charles Howell	Fredonia, N. Y.	Sept. 14, 1858.
22468	Harvester, cutting apparatus of	W. A. Wood	Cleveland, Ohio	Dec. 28, 1858.
19920	Harvester, cutting device for	D. W. Entri kin & L. H. Davis	Hoosick Falls, N. Y.	April 13, 1858.
21414	Harvester, cutting device for	C. P. Grouberg	West Chester, Pa.	Sept. 7, 1858.
20243	Harvester, finger or guard for	Lewis Miller, assignor to C. Aultman & Co.	Montgomery, Ill.	May 11, 1858.
19518	Harvester-finger	Henry C. Smith	Canton, Ohio	Mar. 2, 1858.
20808	Harvester-finger	John P. Manny	Cleaveland, Ohio	July 6, 1858.
19319	Harvester, grain and grass	Aaron Van Duzer	Rockford, Ill.	Feb. 9, 1858.
19938	Harvester, grain and grass	Henry Marcellus	Goshen, N. Y.	April 13, 1858.
21063	Harvester, grain and grass	Robert Bryson	Amsterdam, N. Y.	Aug. 3, 1858.
22251	Harvester, grain and grass	M. G. Hubbard	Schenectady, N. Y.	Dec. 7, 1858.
21533	Harvester, guard-finger for	John W. Brokaw, assignor to Warder, Brokaw, & Child.	Penn Yan, N. Y.	Sept. 14, 1858.
20618	Harvester, hemp	Thomas Berry	Springfield, Ohio	June 22, 1858.
21840	Harvester, maize	C. B. Matthews	Louisburgh, Ky.	Oct. 19, 1858.
19019	Harvester, rake for	Samuel Comfort, jr	Oquawka, Ill.	Jan. 5, 1858.
19523	Harvester, rake for	Isaac Van Doren	Morrisville, Pa.	Mar. 2, 1858.
			Somerville, N. J.	

21540	Harvester, raking and binding apparatus for	Allen Sherwood, assignor to E. P. Senter, Albert Goss, & Daniel Woodworth.	Auburn, N. Y	Sept. 14, 1858.
20805	Harvester, raking and binding attachment to	John P. Manny	Rockford, Ill	July 6, 1858.
19212	Harvester, raking and binding device for	Allen Sherwood	Auburn, N. Y	Jan. 26, 1858.
20119	Harvester, raking and delivering attachment to	W. A. Wood	Hoosick Falls, N. Y	April 27, 1858.
19085	Harvester, raking attachment for	James L. Fountain	Rockford, Ill	Jan. 12, 1858.
19378	Harvester, raking attachment for	James W. Patterson	Philadelphia, Pa	Feb. 16, 1858.
19393	Harvester, raking attachment for	Jacob V. A. & Andrew Wample	Chicago, Ill	Feb. 16, 1858.
20061	Harvester, raking attachment for	G. V. Griffith	Sandusky, Ohio	April 27, 1858.
21552	Harvester, raking attachment for	Peter S. Crawford	Marengo, Ill	Sept 21, 1858.
19958	Harvester, raking attachment to	Oren Stoddard	Busti, N. Y	April 13, 1858.
20378	Harvester, raking attachment to	J. A. St. John	Janesville, Wis	May 25, 1858.
20411	Harvester, raking attachment to	D. O. DeWolf	New York, N. Y	June 1, 1858.
20475	Harvester, raking attachment to	John A. Barrington	Fredericktown, Ohio	June 8, 1858.
21437	Harvester, raking attachment to	John Nelson	Rockford, Ill	Sept. 7, 1858.
21847	Harvester, raking attachment to	Adam R. Reese	Phillipsburg, N. J	Oct. 19, 1858.
21940	Harvester, raking attachment to	W. W. Burson	Yates City, Ill	Nov. 2, 1858.
22326	Harvester, raking attachment to	Joseph Young	Marshalltown, Pa	Dec. 14, 1858.
20807	Harvester, track-clearer for	John P. Manny	Rockford, Ill	July 6, 1858.
22368	Harvesters, method of gathering grain upon and discharging it from the platform of.	Obed Hussey	Baltimore, Md	Dec. 21, 1858.
20515	Harvesting-machine	W. H. Seymour and D. S. Morgan	Brockport, N. Y	June 8, 1858.
21343	Harvesting-machine	H. G. Kaufmann	St. Louis, Mo	Aug. 31, 1858.
21869	Harvesting-machine, grain-discharging attachment to.	J. F. Black	Lancaster, Ill	Oct. 26, 1858.
19689	Hay-cock protector	O. R. Dinsmoor	Auburn, N. H	Mar. 23, 1858.
21150	Hay-elevator	E. M. Rees	Norristown, Pa	Aug. 10, 1858.
22062	Hay fed to stock, devices for saving the seed from.	Robert A. Campbell	Salem, Ind	Nov. 16, 1858.
20241	Hay, forks for elevating	C. E. and J. N. Gladding, assignors to Chas. E. Gladding.	Troy, Pa	May 11, 1858.
19921	Hay-knives	John Fasig	Jackson, Ohio	April 13, 1858.
20772	Hay, machine for raking and loading	J. B. Benton, J. F. Behn, and G. Bastian	Buffalo, N. Y	July 6, 1858.
19812	Hoes, manufacture of	Judson Knight, assignor to S. Boyd, assignor to R. W. Booth.	Newark, N. J	Mar. 30, 1858.
20030	Huller, rice	H. N. Black	Philadelphia, Pa	April 27, 1858.
19745	Hulling and cleaning clover-seed, machine for	J. V. Blackwell	Ovid, N. Y	Mar. 30, 1858.
20971	Hulling and cleaning rice, machine for	D. Henwood and J. Stephens, assignors to themselves and Thomas F. Rowland.	Brooklyn, N. Y	July 20, 1858.



*List of patents for inventions, 1858—Class I.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20249	Hulling and threshing clover, machine for	John C. Birdsell	Rush, N. Y.	May 18, 1858.
20830	Hulling-machine, rice	J. F. Taylor	Charlestown, S. C.	July 6, 1858.
19557	Hulling rice, machine for	A. M. George	Nashua, N. H.	Mar. 9, 1858.
20138	Hulling rice, machine for	F. and L. Burdick	South East, N. Y.	May 4, 1858.
20552	Hulling rice, machine for	Philip Dickenshof	Philadelphia, Pa.	June 15, 1858.
20833	Hulling rice, machine for	R. P. Walker	New York, N. Y.	July 6, 1858.
20860	Hulling rice, machine for	J. S. Bossard	Sumterville, S. C.	July 13, 1858.
19018	Husking and shelling glove	Emil Cohen	Washington, D. C.	Jan. 5, 1858.
	Manure-wagon. (See Class X, letter W.)			
19083	Mowing-machine	Henry Fisher	Canton, Ohio	Jan. 12, 1858.
19504	Mowing-machine	Charles Howell	Cleveland, Ohio	Mar. 2, 1858.
19913	Mowing-machine	William Crooke	New Hope, Pa.	April 13, 1858.
20035	Mowing-machine	Thomas Burrall	Geneva, N. Y.	April 27, 1858.
20164	Mowing-machine	Henry Marcellus	Amsterdam, N. Y.	May 4, 1858.
20479	Mowing-machine	John Butter	Buffalo, N. Y.	June 8, 1858.
21607	Mowing-machine	George F. and Moses Jerome	Mincola, N. Y.	Sept. 28, 1858.
21777	Mowing-machine	Fisk Russell	South Boston, Mass.	Oct. 12, 1858.
19936	Mowing-machine, track-clearer for	Abraham Marcellus	Amsterdam, N. Y.	April 13, 1858.
19800	Peas, machine for shelling	William J. Stevenson	New York, N. Y.	Mar. 30, 1858.
19198	Planter, corn	P. C. Mosier	Homer, Ill.	Jan. 26, 1858.
19242	Planter, corn	Nathaniel Drake	Newton, N. J.	Feb. 2; add'l imp't, Sept. 28; reissued, Dec. 14, 1858.
20024	Planter, corn	George Taylor, assignor to himself and John W. Free.	Richmond, Ind.	April 20, 1858.
20074	Planter, corn	Oliver Lippincott	Camden, N. J.	April 27, 1858.
20193	Planter, corn	R. J. Clay	St. Louis, Mo.	May 11, 1858.
20297	Planter, corn	L. B. Phelps	Geneva, Ohio	May 18, 1858.
20467	Planter, corn	A. C. Carey, assignor to himself and A. B. Ely.	Ipswich, Mass.	June 1, 1858.
20639	Planter, corn	Pascal Hatch	Norwich, Vt.	June 22, 1858.
20781	Planter, corn	Warren Drummond	Woolbridge, N. J.	July 6, 1858.

21180	Planter, corn	Thomas M. Badgood	Cleveland, Ind.	Aug. 17, 1858.
21187	Planter, corn	John S. Davis	Arcadia, Ohio	Aug. 17, 1858.
21287	Planter, corn	Horace Whitman	Kingsville, Ohio	Aug. 24, 1858.
21393	Planter, corn	Franklin W. White	Worcester, Mass	Aug. 31, 1858.
21404	Planter, corn	A. G. Babcock	Galesburg, Ill.	Sept. 7, 1858.
21583	Planter, corn	Charles Van Houten	Sunbury, Ohio	Sept. 21, 1858.
22183	Planter, corn	Daniel Ladd	Dearborn, Mich	Nov. 30, 1858.
19438	Planter, cotton seed	Daniel B. Neal	Mount Gilead, Ohio	Feb. 23, 1858.
19874	Planter, cotton seed	James Ross	Midway, Alabama	April 6, 1858.
20049	Planter, cotton seed	J. T. Donovan and W. J. Fowler	Seguin, Texas	April 27, 1858.
20432	Planter, cotton seed	J. S. Higgins and R. Chapman	Darlington District, S. C	June 1, 1858.
20572	Planter, cotton seed	Arnold McDonald	Salem, Miss	June 15, 1858.
20694	Planter, cotton seed	E. T. Bostrom	Newnan, Ga	June 29, 1858.
21308	Planter, cotton seed	Horatio P. Allen	Bowling Green, Ky	Aug. 31, 1858.
19329	Planter, hand corn	John B. Fairbank, deceased	New York, N. Y	Feb. 9, 1858.
19540	Planter, hand corn	Joshua Fairbank & Ed'n C. Durfee, adm'rs.	Leon, N. Y	Mar. 9, 1858.
19833	Planter, hand corn	H. F. Batcheller	Sterling, Ill	April 6, 1858.
19054	Planter, potato	D. G. Coppin	Cincinnati, Ohio	Jan. 5, 1858.
19178	Planter, potato	H. Wainwright and S. T. Williams	Farmingdale, N. J	Jan. 26, 1858.
19294	Planter, potato	John R. Alberson	Allegheny, Penn	Feb. 9, 1858.
20061	Planter, potato	Edward E. Hawley	New Haven, Conn	April 20, 1858.
19010	Planter, seed	F. S. McWhorter	Smyrna, Del	Jan. 5, 1858.
19026	Planter, seed	Henry F. Baker	Centreville, Ind	Jan. 19, 1858.
19122	Planter, seed	M. J. Hunt and J. H. Haines	Rising Sun, Md	Jan. 19, 1858.
19126	Planter, seed	Samuel Baker	Mount Pulaski, Ill	Jan. 26, 1858.
19222	Planter, seed	John A. Brown	Richmond, Ind	Feb. 2, 1858.
19274	Planter, seed	J. D. Willoughby	Pleasant Hall, Penn	Feb. 23, 1858.
19456	Planter, seed	Joseph H. Wiggin	Boston, Mass	Feb. 23, 1858.
19404	Planter, seed	Daniel L. Tilton	Mount Carmel, Ill	Mar. 9, 1858.
19579	Planter, seed	L. A. Butts	Cuba, N. Y	Mar. 9, 1858.
19549	Planter, seed	Joseph Redhead	Woodville, Miss	Mar. 30, 1858.
19818	Planter, seed	William C. Doss	Texana, Texas	April 13, 1858.
19953	Planter, seed	Samuel Thompson, assignor to himself and A. W. Taggart.	Hopedale, Ohio	May 4, 1858.
20158	Planter, seed	Thomas Russell	Waldoboro', Maine	May 4, 1858.
20143	Planter, seed	James J. Johnston	Allegheny, Penn	June 1, 1858.
20440	Planter, seed	James Charlton	Allegheny, Penn	June 22, 1858.
20651	Planter, seed	Elmore Parker	Baltimore, Md	
		Joseph McKown	Gardstown, Va	



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No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20749	Planter, seed-----	Augustus Wales-----	Pontiac, Ill-----	June 29, 1858.
20738	Planter, seed-----	G. Smith and A. G. Perry-----	Clyde, Ohio-----	June 29, 1858.
20709	Planter, seed-----	R. B. Ground-----	Marine Town, Ill-----	June 29, 1858.
21034	Planter, seed-----	J. H. Thomas and P. P. Mast-----	Springfield, Ohio-----	July 27, 1858.
21102	Planter, seed-----	J. D. Willoughby-----	Carlisle, Penn-----	Aug. 3, 1858.
21112	Planter, seed-----	Addison Berdan-----	Macon, Mich-----	Aug. 10, 1858.
21127	Planter, seed-----	H. C. Fairchild-----	Brooklyn, Penn-----	Aug. 10, 1858.
21137	Planter, seed-----	E. W. Kimball-----	Ottawa, Ill-----	Aug. 10, 1858.
21217	Planter, seed-----	Jonathan H. Rose-----	Versailles, Ill-----	Aug. 17, 1858.
21397	Planter, seed-----	W. A. Mahaffy, assignor to John Greek-----	Carimona, Min----- Evansville, Ind-----	Aug. 31, 1858.
21440	Planter, seed-----	Benjamin Owen-----	Dayton, Ohio-----	Sept. 7, 1858.
22156	Planter, seed-----	J. F. Beckwith and A. G. Gage-----	Alabama, N. Y-----	Nov. 30, 1858.
22228	Planter, seed-----	Jarvis Case, assignor to himself and Wm. Baldwin-----	Bloomington, Ill-----	Dec. 7, 1858.
22438	Planter, seed-----	F. M. Marshall-----	Seguin, Texas-----	Dec. 28, 1858.
20014	Planting hoes, seed-----	Samuel Woodruff-----	Sparta, N. J-----	April 20, 1858.
19322	Planting potatoes, machine for-----	Thomas B. Whyte-----	Greenwich, N. Y-----	Feb. 9, 1858.
19869	Planting potatoes, machine for-----	Jesse W. Pelletreau-----	East Moriches, N. Y-----	April 6, 1858.
19163	Plough-----	Thomas Thompson-----	Thompsonville, N. C-----	Jan. 19, 1858.
19125	Plough-----	Samuel R. Borum and William McClean-----	Norfolk, Va-----	Jan. 19, 1858.
19179	Plough-----	Joseph Banks-----	Dadeville, Ala-----	Jan. 26, 1858.
19262	Plough-----	Joseph O. Ramage-----	Lafayette, Ala-----	Feb. 2, 1858.
19321	Plough-----	George Watt-----	Richmond, Va-----	Feb. 9, 1858.
19388	Plough-----	Marshall Turley-----	Galesburg, Ill-----	Feb. 16, 1858.
19391	Plough-----	W. W. Van Loan-----	Catskill, N. Y-----	Feb. 16, 1858.
19401	Plough-----	Elijah Bloodworth-----	Thomaston, Ga-----	Feb. 16, 1858.
19455	Plough-----	Turney Sanford-----	Redding Ridge, Conn-----	Feb. 23, 1858.
19563	Plough-----	David Hoke-----	Byhalia, Miss-----	Mar. 9, 1858.
19658	Plough-----	Grey Utley-----	Louisburg, N. C-----	Mar. 16, 1858.
19725	Plough-----	Daniel L. Tilton-----	Mount Carmel, Ill-----	Mar. 23, 1858.
19706	Plough-----	Thomas McConaughy-----	Barnesville, Ala-----	Mar. 23, 1858.

19886	Plough.....	Joshua C. Williamson.....	Washington, Ga.....	April 6, 1858.
19878	Plough.....	Thaddeus S. Scoville.....	Elmira, N. Y.....	April 6, 1858.
19909	Plough.....	Thomas E. C. Brinley.....	Simpsonville, Ky.....	April 13, 1858.
20269	Plough.....	John M. Hall.....	Warrenton, Ga.....	May 18, 1858.
20659	Plough.....	Henry M. Platt.....	Darien, Ct.....	June 22, 1858.
20633	Plough.....	Alexander Dickson.....	Hillsboro', N. C.....	June 22, 1858.
20790	Plough.....	J. P. Harris.....	Byhalia, Miss.....	July 6, 1858.
20935	Plough.....	G. D. Colton.....	Galesburg, Ill.....	July 20, 1858.
20968	Plough.....	Walter Warren.....	Penn Yan, N. Y.....	July 20, 1858.
20984	Plough.....	S. R. Bliven.....	McDonough, N. Y.....	July 27, 1858.
21167	Plough.....	Joseph Jones, assignor to Edmund Jones and Joseph Jones, jr.	New Castle, Del.....	Aug. 10, 1858.
21182	Plough.....	William Black.....	Manchester, Pa.....	Aug. 17, 1858.
21423	Plough.....	Samuel Hulbert.....	Ogdensburg, N. Y.....	Sept. 7, 1858.
21598	Plough.....	David Cockley.....	Lancaster, Pa.....	Sept. 28, 1858.
21630	Plough.....	B. B. Scofield.....	Andover, Ill.....	Sept. 28, 1858.
21824	Plough.....	John Dickson.....	New Castle, Pa.....	Oct. 19, 1858.
21846	Plough.....	William Reany.....	Berzelia, Ga.....	Oct. 19, 1858.
21953	Plough.....	John Gehr.....	College of St. James, Md.....	Nov. 2, 1858.
21975	Plough.....	A. A. McMahan.....	Oxford, Miss.....	Nov. 2, 1858.
22013	Plough.....	John M. Burke.....	Dansville, N. Y.....	Nov. 9, 1858.
22332	Plough.....	Thomas Wiard, assignor to G. W. and H. W. Pitken and W. L. P. Wiard.	Louisville, Ky.....	Dec. 14, 1858.
22389	Plough.....	Reed Vincent.....	Rockton, Ill.....	Dec. 21, 1858.
20689	Plough, draining mould-boards for. (See Class II, letter B.)	Moses Barrowman.....	Buffalo, N. Y.....	June 29, 1858.
19077	Plough, drain.....	M. A. Cravath.....	Lodi, Ill.....	Jan. 12, 1858.
19652	Plough, gang.....	Lewis Roach.....	Covington, Ky.....	Mar. 16, 1858.
20122	Plough, gang.....	G. W. N. Yost.....	Cincinnati, Ohio.....	April 27, 1858.
20342	Plough, gang.....	Jesse Frye.....	Mendota, Ill.....	May 25, 1858.
20647	Plough, gang.....	Don C. Matteson.....	Stockton, Cal.....	dated Mar. 18, 1858.
19496	Plough, hill-side.....	Samuel Dennis, jr.....	Jasper, N. Y.....	June 22, 1858.
20812	Plough, hill-side.....	Modest Merk.....	Rochester, N. Y.....	Mar. 2, 1858.
21306	Plough, hill-side.....	Henry S. Akins.....	Speedsville, N. Y.....	July 6, 1858.
21547	Plough, mole. (See Class IX, letter P.)	T. E. C. Brinly.....	Simpsonville, Ky.....	Aug. 31, 1858.
19412	Plough, press and drill.....	Paul Dennis.....	Remus Heights, N. Y.....	Sept. 21, 1858.
	Plough, shovel.....			Feb. 23, 1858.



*List of patents for inventions, 1858—CLASS I.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19427	Plough, steam .....	Peirce Klinge.....	Linnean Hill, D. C.....	Feb. 23, 1858. Ad- di'l imp't Mar. 9, '58.
21661	Plough, steam .....	James W. Evans.....	New York, N. Y.....	Oct. 5, 1858.
19215	Plough, trenching. (See Class IX, letter T.)	William Stoddard.....	Lowell, Mass.....	Jan. 26, 1858.
19189	Ploughing-machine.....	Joseph W. Fawkes.....	Christiana, Pa.....	Jan. 26, 1858.
20300	Ploughs, machine for.....	Abner Reeder.....	Wrightstown, Pa.....	May 18, 1858.
	Ploughs, apparatus for cleaning the coulters of Ploughs, moulds for casting. (See Class II, letter C.)			
19849	Potato-digger .....	L. W. Harris.....	Waterville, N. Y.....	April 6, 1858.
20949	Potatoes, machine for digging.....	Malcom Little.....	Clyde, N. Y.....	July 20, 1858.
21226	Potatoes, machine for digging.....	Luke White.....	Essex, Vt.....	Aug. 17, 1858.
21225	Potatoes, machine for digging.....	Alexander Wells.....	Brooklyn, N. Y.....	Aug. 17, 1858.
21413	Potatoes, machine for digging.....	Nathaniel Gear.....	Zanesville, Ohio.....	Sept. 7, 1858.
21664	Rake, hay .....	Peter Fitzgerald.....	Constantine, Ohio.....	Oct. 5, 1858.
21712	Rake, hay .....	George Whitcomb.....	Port Chester, N. Y.....	Oct. 5, 1858.
21698	Rake, hay .....	Mathias Raezer.....	Reading, Pa.....	Oct. 5, 1858.
19420	Rake, horse.....	William Horning.....	New Lebanon, Ohio.....	Feb. 23, 1858.
21268	Rake, horse.....	Mirick Morgan.....	Lancaster, Pa.....	Aug. 24, 1858.
21358	Rake, horse.....	L. H. Parson and George Houston.....	Middletown, N. Y.....	Aug. 31, 1858.
22235	Rake, horse.....	George W. Hadcock and Parker Wilcox.....	Norway, N. Y.....	Dec. 7, 1858.
22232	Rake, horse.....	Christian Garver.....	Londonderry, Pa.....	Dec. 7, 1858.
19753	Rake, horse hay.....	Asahel Cowley.....	Harpersfield, N. Y.....	Mar. 30, 1858.
19975	Rake, horse hay.....	N. E. Allen.....	Trenton, Wis.....	April 20, 1858.
20844	Rake, horse hay.....	John F. Faust, assignor to himself and Richard M. Ross.	Lebanon, Ohio.....	July 6, 1858.
19687	Reaper, binding attachment to.....	A. F. French, assignor to George J. Stan- nard.	Franklin, Vt.....	Mar. 23, 1858.
19118	Reaper, hand.....	John W. Baltzly and W. Hobson.....	Pana, Ill .....	Jan. 19, 1858.
19367	Reaping and mowing machine.....	Charles Howell.....	Cleveland, Ohio.....	Feb. 16, 1858.
19904	Reaping and mowing machine.....	Charles Beach .....	Penn Yan, N. Y.....	April 13, 1858.
20212	Reaping and mowing machine.....	L. J. Williams and C. H. McCormick.....	Chicago, Ill.....	May 11, 1858.

20251	Reaping and mowing machine.....	J. W. Brokaw, assignor to Warder, Brokaw, & Child.	Springfield, Ohio .....	May 18, 1858.
20275	Reaping and mowing machine.....	Charles Howell.....	Cleveland, Ohio .....	May 18, 1858.
20887	Reaping and mowing machine.....	C. Moul.....	Hanover, Pa .....	July 13, 1858.
19894	Reaping and mowing machine, cutting device for.	Thomas Harding, assignor to Warder, Brokaw, & Child.	Springfield, Ohio .....	April 6, 1858.
20017	Reaping-machine .....	J. W. Brokaw, assignor to Warder, Brokaw, & Child.	Springfield, Ohio.....	April 20, 1858.
21207	Reaping-machine .....	C. W. and W. W. Marsh .....	Shabbona, Ill .....	Aug. 17, 1858.
21434	Reaping-machine, binding attachment to.....	James Mitchell .....	Osceola, Iowa.....	Sept. 7, 1858.
19020	Seeding-machine .....	Isaac H. Conklin .....	Rockford, Ill .....	Jan. 5, 1858.
19144	Seeding-machine.....	John Huston.....	Ottawa, Ill.....	Jan. 19, 1858.
19333	Seeding-machine.....	Chester Barton .....	Savoy, Mass.....	Feb. 16, 1858.
19423	Seeding-machine .....	G. W. Hildreth.....	Lockport, N. Y.....	Feb. 23, 1858.
19514	Seeding-machine .....	Aaron Ring .....	Westbrook, Me.....	Mar. 2, 1858.
19859	Seeding-machine .....	J. B. Lutz.....	Lafayette, Ind .....	April 6, 1858.
19839	Seeding-machine.....	Joseph Frey.....	Battle Creek, Mich .....	April 6, 1858.
19871	Seeding-machine.....	Thomas A. Risher .....	Circleville, Ohio .....	April 6, 1858.
19872	Seeding-machine.....	Thomas A. Risher.....	Circleville, Ohio .....	April 6, 1858.
19902	Seeding-machine.....	Charles F. Anderson .....	Charlestown, N. H .....	April 13, 1858.
20162	Seeding-machine.....	James F. Kierstead .....	Laporte, Ind.....	May 4, 1858.
20301	Seeding-machine .....	Luther Robinson.....	Melrose, Mass.....	May 18, 1858.
20357	Seeding-machine .....	Joseph McCammon.....	Dayton, Ohio .....	May 25, 1858.
20358	Seeding-machine .....	G. M. L. McMillen.....	Dayton, Ohio .....	May 25, 1858.
20366	Seeding-machine.....	A. M. Pratt .....	Lowell, N. Y .....	May 25, 1858.
20575	Seeding-machine .....	Daniel B. Neal .....	Mount Gilead, Ohio .....	June 15, 1858.
20547	Seeding-machine.....	Samuel Burnside.....	Reading, Ohio .....	June 15, 1858.
20643	Seeding-machine.....	Samuel F. Jones.....	St. Paul, Ind .....	June 22, 1858.
20656	Seeding-machine.....	William Morehouse .....	Davenport, Iowa .....	June 22, 1858.
21162	Seeding-machine .....	S. R. Weldon .....	Winnebago Station, Ill.....	Aug. 10, 1858.
21152	Seeding-machine.....	T. R. Richmond .....	Masillon, Ohio .....	Aug. 10, 1858.
21252	Seeding-machine .....	Joseph Fowler and F. M. Bacon.....	Ripon, Wis .....	Aug. 24, 1858.
21273	Seeding-machine .....	D. B. Keiper and A. C. Fox .....	Texasa, Texas.....	Aug. 24, 1858.
21257	Seeding-machine .....	Paul Hildreth .....	Beloit, Wis .....	Aug. 24, 1858.
21354	Seeding-machine.....	Lewis Moore .....	Ypsilanti, Mich .....	Aug. 31, 1858.
21389	Seeding-machine.....	Alexander Turner, Redden Bess, and Hervey Sloan.	Franklin, Ind.....	Aug. 31, 1858.
21375	Seeding-machine.....	J. D. Smith.....	Lancaster, Ohio .....	Aug. 31, 1858.



List of patents for inventions, 1858—CLASS I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21349	Seeding-machine . . . . .	J. B. McCormick and	Versailles, Ky. . . . .	Aug. 31, 1858.
21350	Seeding-machine . . . . .	W. R. Baker . . . . .	Boston, Mass. . . . .	Aug. 31, 1858.
21314	Seeding-machine . . . . .	E. L. Lyon . . . . .	East Randolph, N. Y. . . . .	Aug. 31, 1858.
21323	Seeding-machine . . . . .	Thomas J. Bottoms . . . . .	Thomasville, Ga. . . . .	Aug. 31, 1858.
21452	Seeding-machine . . . . .	S. Conklin and G. Newton . . . . .	Sterling, Ill. . . . .	Sept. 7, 1858.
21595	Seeding-machine . . . . .	Samuel Stauber . . . . .	Salem, Mich. . . . .	Sept. 28, 1858.
21780	Seeding-machine . . . . .	George C. Bunsen and Cyrus Roberts . . . . .	Belleville, Ill. . . . .	Oct. 12, 1858.
21850	Seeding-machine . . . . .	Andrew Simmons . . . . .	Nora, Ill. . . . .	Oct. 19, 1858.
21807	Seeding-machine . . . . .	M. S. Root . . . . .	Medina, Ohio . . . . .	Oct. 19, 1858.
21995	Seeding-machine . . . . .	A. G. Babcock . . . . .	Galesburg, Ill. . . . .	Nov. 2, 1858.
21969	Seeding-machine . . . . .	Joseph Walton . . . . .	Delavan, Wis. . . . .	Nov. 2, 1858.
21958	Seeding-machine . . . . .	Hermann Kaller . . . . .	Perry, Ill. . . . .	Nov. 2, 1858.
21959	Seeding-machine . . . . .	Aaron Hatfield . . . . .	Petersburg, Ill. . . . .	Nov. 2, 1858.
22208	Seeding-machine . . . . .	W. Y. Henry . . . . .	Monmouth, Ill. . . . .	Nov. 30, 1858.
22184	Seeding-machine . . . . .	John W. Vandiver . . . . .	Shelbyville, Mo. . . . .	Nov. 30, 1858.
		Daniel and Austin S. Markham and David Eldred. . . . .	Monmouth, Ill. . . . .	Nov. 30, 1858.
22180	Seeding-machine . . . . .	R. W. Hunt and M. Kennedy . . . . .	Galesburg, Ill. . . . .	Nov. 30, 1858.
22171	Seeding-machine . . . . .	Warren Drummond . . . . .	Woodbridge, N. J. . . . .	Nov. 30, 1858.
22339	Seeding-machine . . . . .	John Badger . . . . .	Baileyville, Ill. . . . .	Dec. 21, 1858.
22374	Seeding-machine . . . . .	Albert W. Morse . . . . .	Eaton, N. Y. . . . .	Dec. 21, 1858.
22418	Seeding-machine . . . . .	Joseph Fowler and F. M. Bacon . . . . .	Ripon, Wis. . . . .	Dec. 28, 1858.
22190	Sheep, apparatus for holding . . . . .	S. Minnich . . . . .	Hopewell, Ohio . . . . .	Nov. 30, 1858.
20585	Sheep while being sheared, device for holding . . . . .	D. R. Reed and J. E. Chapman . . . . .	Castile, N. Y. . . . .	June 15, 1858.
19431	Sowing fertilizers, machine for . . . . .	William H. May and . . . . .	Alexandria, Va. . . . .	Feb. 23, 1858.
21181	Sowing fertilizers, machine for . . . . .	Charles W. Coontz . . . . .	Winchester, Va. . . . .	Aug. 17, 1858.
21803	Spading-machine . . . . .	Lyman Bickford . . . . .	Macedon, N. Y. . . . .	Oct. 12, 1858.
		Judd Stevens, assignor to himself and John L. Beadle. . . . .	Marengo, N. Y. . . . .	
22473	Stacking agricultural products . . . . .	Carlos W. Glover, assignor to himself, Bronson Murny, and J. Van Doren. . . . .	Farm Ridge, Ill. . . . .	Dec. 28, 1858.



22475	Stacking agricultural products.....	John Van Doren, assignor to himself, B. Murray, and C. W. Glover.	Farm Ridge, Ill.....	Dec. 28, 1858.
19430	Stones, machine for gathering.....	James H. Maydole.....	Eaton, N. Y.....	Feb. 23, 1858.
20774	tones, machine for gathering.....	G. W. Bishop.....	Brooklyn, N. Y.....	July 6, 1858.
20038	Straw and stalk cutter.....	P. S. Clinger and C. Cremer.....	Conestoga, Penn.....	April 27, 1858.
22117	Straw-carrier.....	Carlos W. Glover.....	Farm Ridge, Ill.....	Nov. 23, 1858.
19200	Straw-cutter.....	J. H. Mumma.....	Harrisburg, Penn.....	Jan. 26, 1858.
19462	Straw-cutter.....	Thomas H. and Daniel T. Wilson.....	Harrisburg, Penn.....	Feb. 23, 1858.
19425	Straw-cutter.....	W. O. Hickock.....	Harrisburg, Penn.....	Feb. 23, 1858.
19779	Straw-cutter.....	W. W. Hollman.....	Eddyville, Ky.....	Mar. 3, 1858.
19895	Straw-cutter.....	J. B. Okey, assignor to himself and W. Y. Wiley.	Indianapolis, Ind.....	April 6, 1858.
19952	Straw-cutter.....	E. P. Russell.....	Manlius, N. Y.....	April 13, 1858.
19935	Straw-cutter.....	John K. Landis.....	Lancaster, Penn.....	April 13, 1858.
20103	Straw-cutter.....	John Tittle.....	Johnstown, Penn.....	April 27, 1858.
20224	Straw-cutter.....	Solomon P. Smith.....	Crescent, N. Y.....	May 11, 1858.
20361	Straw-cutter.....	Oren Moses.....	Malone, N. Y.....	May 25, 1858.
20582	Straw-cutter.....	C. P. Perry.....	Norristown, Penn.....	June 15, 1858.
20958	Straw-cutter.....	Robert Sinclair, jr.....	Baltimore, Md.....	July 20, 1858.
21110	Straw-cutter.....	Darius Babcock.....	Dryden, N. Y.....	Aug. 10, 1858.
21954	Straw-cutter.....	Oliver C. Green.....	Dublin, Ind.....	Nov. 2, 1858.
21970	Straw-cutter.....	James Lashbrooks.....	Rockport, Ind.....	Nov. 2, 1858.
22072	Straw-cutter.....	Wilson Green and Malcom McFisher.....	Chattanooga, Tenn.....	Nov. 16, 1858.
22207	Straw-cutter.....	Peter Vandesande, assignor to himself and Martin Vanderwerf.	Rochester, N. Y.....	Nov. 30, 1858.
22336	Straw-cutter.....	Olive Ann Brooks, administratrix of.....	Somersworth, N. H.....	Dec. 14, 1858.
20976	Straw-shaker.....	Lebeus Brooks, deceased.....	Great Falls, N. H.....	July 20, 1858.
21111	Threshing and separating grain, machine for.....	Leonard Ellig, assignor to Andrew Garret.....	Mill Creek, Penn.....	Aug. 10, 1858.
19148	Threshing-machine.....	N. J. Becker and J. M. Harvey.....	Amsterdam, N. Y.....	Jan. 19, 1858.
19865	Threshing-machine.....	P. W. Mills.....	Conneaut, Ohio.....	April 6, 1858.
20449	Threshing-machine.....	John B. Moffitt.....	St. Louis, Mo.....	June 1, 1858.
21214	Threshing-machine.....	H. E. Smith.....	Philadelphia, Penn.....	Aug. 17, 1858.
21963	Threshing-machine.....	Samuel D. Reynolds.....	Lane, Ill.....	Nov. 2, 1858.
22141	Threshing-machine.....	Abram Jackson.....	Lebanon, Tenn.....	Nov. 23, 1858.
20892	Threshing-machine, endless chain for.....	M. D. Wells and.....	Morgantown, Va.....	July 13, 1858.
20474	Threshing-machines, machine for measuring, registering, and receiving grain direct from.....	H. Hagans.....	Brandonville, Va.....	June 8, 1858.
		J. E. Owens, C. Lane, and E. G. Dyer.....	Hamilton, Ohio.....	
		Peleg Barker.....	Moscow, Mich.....	



*List of patents for inventions, 1858—CLASS I.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21628	Threshing-machines, riddles for.....	F. W. Robinson .....	Richmond, Ia.....	Sept. 28, 1858.
21367	Threshing-machines, straw-carriers of.....	F. W. Robinson .....	Richmond, Ia.....	Aug. 31, 1858.
19357	Tree-protector .....	Josiah Foster.....	Sandwich, Mass .....	Feb. 16, 1858.
	Trees from insects, compound for protecting. (See Class IV, letter C.)			
21057	Wheat-separator .....	W. H. Angel and M. Coffeen.....	Watertown, N. Y.....	Aug. 3, 1858.
19615	Winnower, grain.....	Henry H. Beach .....	Philadelphia, Penn. ....	Mar. 16, 1858.
19905	Winnowing-machines, chaff screens for.....	Alfred Belchamber.....	Ripley, Ohio.....	April 13, 1858.
21087	Yoke, ox.....	Joseph H. Riggs.....	Gloucester, Mass.....	Aug. 3, 1858.
21392	Yoke, ox.....	George W. Weeks.....	Boston, Mass.....	Aug. 31, 1858.

*CLASS II.—METALLURGY, and manufacture of metals, and instruments therefor.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22245	Amalgamator.....	Lewis Solomon.....	New York, N. Y.....	Dec. 7, 1858.
19246	Amalgamator, gold.....	Joseph H. Fisher .....	Placerville, Cal.....	Feb. 2, 1858.
21204	Amalgamating gold and silver.....	Samuel Longman .....	Brooklyn, N. Y.....	Aug. 17, 1858.
19901	Awls and tools.....	Herrick Aiken.....	Franklin, N. H.....	April 13, 1858.
20957	Axe-polls, machine for making.....	George Reynolds.....	Manchester, N. H.....	July 20, 1858.
20780	Axles, carriage, machine for upsetting .....	Zina Doolittle .....	Perry, Ga.....	July 6, 1858.
19940	Bar for securing bank-vaults.....	William Maurer .....	New York, N. Y.....	April 13, 1858.
19261	Bars, making railway.....	Thomas E. Purchase .....	Reading, Pa.....	Feb. 2, 1858.
20128	Bending mould-boards for ploughs.....	Benjamin Pitcher, assignor to himself, W. Tobey, and John Anderson.	Peoria, Ill.....	April 27, 1858.
21638	Blind-operator .....	James A. Dorman and Joseph E. Stearns, assignors to James A. Dorman.	Worcester, Mass.....	Sept. 28, 1858.

22172	Blind-operator .....	L. N. Fay and William Mason.....	West Warren, Mass.....	Nov. 30, 1858.
19751	Blinds, outside, opening and closing.....	John E. Clokey .....	Washington, D. C.....	Mar. 30, 1858.
19891	Bolt, door.....	John Woolman.....	Philadelphia, Pa.....	April 6, 1858.
19485	Bolt-machine.....	Henry Carter.....	Pittsburg, Pa.....	Mar. 2, 1858.
21279	Bolt-machine .....	Elisha Simkins .....	Allegheny, Pa.....	Aug. 24, 1858.
20149	Bolt, ring .....	George W. Devin.....	Ottumwa, Iowa.....	May 4, 1858.
20940	Bolt, spring .....	Edward Doen .....	New Britain, Ct.....	July 20, 1858.
21910	Bolts, machine for drawing .....	C. L. Stevenson.....	Charlestown, Mass.....	Oct. 26, 1858.
22470	Buckles, turn, for window-blinds.....	Joseph L. Chapman, assignor to himself and George Chapman.....	Philadelphia, Pa.....	Dec. 28, 1858.
19988	Burnisher .....	Charles Frampton.....	Brooklyn, N. Y.....	April 20, 1858.
22452	Burnishing attachment for lathes.....	James S. Ray.....	East Haddam, Ct.....	Dec. 28, 1858.
21304	Burnishing machine.....	Leroy White, assignor to E. W. Sperry, E. Hurlbut, and J. H. Ashmead.....	Hartford, Ct.....	Aug. 24, 1858.
22459	Burring-machine .....	O. W. Stow.....	Southington, Ct.....	Dec. 28, 1858.
21796	Cans for preserving paint .....	Edward Clark, assignor to W. H. Dolson.....	New York, N. Y.....	Oct. 12, 1858.
20635	Cast iron cylinders, repairing.....	Samuel Falkenbury.....	Susquehanna Depot, Pa.....	June 22, 1858.
20022	Casting car-wheels .....	Robert Poole, assignor to himself and Ger- man H. Hunt.....	Baltimore, Md.....	April 20, 1858.
20151	Casting car-wheels .....	David Finley.....	Champlain, N. Y.....	May 4, 1858.
20395	Casting faucets.....	O. T. Wood, assignor to Thomas R. Wood.....	Pittsburg, Pa.....	May 25, 1858.
20948	Casting hinges.....	Conrad M. Lane .....	Cincinnati, Ohio.....	July 20, 1858.
20951	Casting iron kettles .....	Cornelius McGinnis .....	Chicago, Ill.....	July 20, 1858.
19258	Casting wheels, flasks for .....	F. Nishwitz .....	Brooklyn, N. Y.....	Feb. 2, 1858.
20955	Chain, machine for making .....	E. H. Perry .....	Providence, R. I.....	July 20, 1858.
21362	Chain, machine for making .....	E. H. Perry .....	Providence, R. I.....	Aug. 31, 1858.
19094	Chain-making machine .....	William J. Lewis .....	Pittsburg, Pa.....	Jan. 12, 1858.
19955	Chain shackle .....	Joseph Snelling.....	East Boston, Mass.....	April 13, 1858.
21088	Chucks for centreing, &c.....	Daniel N. Smith.....	Boston, Mass.....	Aug. 3, 1858.
19918	Cop-tube .....	James Eaton .....	Townsend Harbor, Mass.....	April 13, 1858.
19188	Currycomb .....	E. L. Evans .....	Providence, R. I.....	Jan. 26, 1858.
19937	Door-fastener.....	George W. McGill .....	Buffalo, N. Y.....	April 13, 1858.
22469	Door-fastener .....	Gilbert Yates.....	West Dresden, N. Y.....	Dec. 28, 1858.
22234	Door-latch .....	Henry Hackman, jr.....	Paque, Pa.....	Dec. 7, 1858.
20570	Doors, double fastening for.....	G. H. Lindner.....	Hoboken, N. J.....	June 15, 1858.
20381	Doors, &c., attachment for opening and closing.....	A. W. Webster.....	Waterbury, Ct.....	May 25, 1858.
20469	Drill for gas-pipe.....	William Daggett, assignor to A. B. Davis and W. H. Tolhurst.....	Troy, N. Y.....	June 1, 1858.
20728	Drill, hand .....	Henry H. Packer .....	Boston, Mass.....	June 29, 1858.



*List of patents for inventions, 1858—CLASS II.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22085	Drill, hand .....	Frederick McNair.....	Fultonham, Ohio.....	Nov. 16, 1858.
20385	Drill, power and hand.....	Horace Woodman.....	Biddeford, Me.....	May 25, 1858.
22323	Drilling metals, machine for .....	Robert Wilson.....	Milton, Pa.....	Dec. 14, 1858.
22446	Fastener, blind.....	John Murphy.....	Boston, Mass.....	Dec. 28, 1858.
19501	Fastener, sash .....	William H. Forbes.....	New York, N. Y.....	Mar. 2, 1858.
20238	Fastener, sash.....	F. W. Brocksieper and J. B. Sargent, as-signors to Joseph B. Sargent.	New Britain, Ct.....	May 11, 1858.
20405	Fastener, sash.....	Oliver Charter.....	Bristol, Ct.....	June 1, 1858.
20526	Fastener, sash .....	J. B. Witherle.....	Upton, Mass.....	June 8, 1858.
20759	Fastener, sash.....	S. Carhart and W. Moore, assignors to themselves and J. H. McWilliams.	Brooklyn, N. Y.....	June 29, 1858.
21328	Fastener, sash.....	Ralph J. Falconer.....	Washington, D. C.....	Aug. 31, 1858.
21968	Fastener, sash .....	Edward M. Judd .....	New Britain, Conn.....	Nov. 2, 1858.
22105	Fastener, sash .....	John Bestwick, jr.....	Dedham, Mass.....	Nov. 23, 1858.
22421	Fastener, sash .....	Porter A. Gladwin.....	Pawtucket, Mass.....	Dec. 28, 1858.
22187	Fastener, shutter.....	John McGerrah .....	Philadelphia, Penn.....	Nov. 30, 1858.
19588	Fastener, window.....	E. S. Scripture.....	New Haven, Conn.....	Mar. 9, 1858.
21370	Fastener, window.....	Irving Root.....	Austin, Texas .....	Aug. 31, 1858.
19143	File .....	Joseph N. Houston .....	West Meriden, Conn.....	Jan. 19, 1858.
22329	File-cutting machine.....	George W. Fogg, assignor to himself and D. S. Fogg.	South Dedham, Mass.....	Dec. 14, 1858.
20286	File-machine.....	F. M. Mattice.....	Buffalo, N. Y.....	May 18, 1858.
19854	Files, machine for cutting .....	J. Nelson Jacobs .....	Worcester, Mass.....	April 6, 1858.
	Forceps for fastening clasps on hoop-skirts. (See Class XXI, letter S.)			
22034	Forging metals, drop for .....	E. K. Root .....	Hartford, Conn.....	Nov. 9, 1858.
19930	Gold, machine for excavating and washing.....	Solomon Johnson.....	New York, N. Y.....	April 13, 1858.
19337	Gold-washer .....	Henry Barnard.....	Morristown, N. Y.....	Feb. 16, 1858.
21820	Hammer .....	Josiah P. Clark .....	Portland, Maine.....	Oct. 19, 1858.
21691	Hammer and anvil, trip.....	David A. Morris.....	Pittsburg, Penn .....	Oct. 5, 1858.
22092	Hammer, forge .....	Benjamin Shiverick.....	Pittsburg, Penn .....	Nov. 16, 1858.
22073	Hammer, hand.....	Alfred Gregory.....	Washington, D. C.....	Nov. 16, 1858.

21823	Hammer head -----	Rufus Dawes -----	Washington, D. C. -----	Oct. 19, 1858.
19997	Hammers, operating blacksmiths' -----	J. W. Kerr -----	Rochester, N. Y. -----	April 20, 1858.
21981	Handles, lifting -----	Joseph B. Sargent -----	New Britain, Conn. -----	Nov. 2, 1858.
20052	Hatchet -----	N. F. English -----	Hartland, Vt -----	April 27, 1858.
19374	Hinge -----	John C Mason -----	New Hartford Centre, Conn -----	Feb. 16, 1858.
21124	Hinge -----	William H. Elliott -----	Pittsburg, Penn -----	Aug. 10, 1858.
21735	Hinge -----	Matthias Bettinger and A. Boos -----	Cincinnati, Ohio -----	Oct. 12, 1858.
21925	Hinge -----	R. Hart, assignor to Theodore F. Hall -----	Washington county, Ohio -----	Oct. 26, 1858.
19076	Hinge-eye for shutters -----	John B. Cornell -----	New York, N. Y -----	Jan. 12, 1858.
21347	Hinge for window-blinds -----	John Loudon and Hans Iverson -----	New York, N. Y -----	Aug. 31, 1858.
22214	Hinge for window-blinds -----	Thomas E. Williams -----	Washington, D. C. -----	Nov. 30, 1858.
21496	Hinge, gate -----	A. T. Hendrick -----	Clyde, N. Y -----	Sept. 14, 1858.
21939	Hinge, gate -----	C. E. Burnham -----	Binghamton, N. Y -----	Nov. 2, 1858.
19526	Hoes, manufacture of. (See Class I.) -----			
20713	Horse-shoe -----	Elbridge Wheeler -----	Marlboro', Mass -----	Mar. 2, 1858.
21571	Horse-shoe -----	W. E. Hubbard -----	Randolph, N. Y -----	June 29, 1858.
19528	Horse-shoe -----	John Maddock -----	Bloomington, Illinois -----	Sept. 21, 1858.
19957	Horse-shoe machine -----	Harry A. Wills -----	Keeseville, N. Y -----	Mar. 2, 1858.
20023	Horse-shoe machine -----	George Stiles, jr., and Strickland Kneass -----	Philadelphia, Penn -----	April 13, 1858.
		E. Shaw and -----	Providence, R. I. -----	
		C. Carpenter, jr -----	Pawtucket, Mass. -----	April 20, 1858.
		assignors to themselves and G. B. Jus- tram.		
20646	Horse-shoe machine -----	W. W. Lewis -----	Cincinnati, Ohio -----	June 22, 1858.
21779	Horse-shoe machine -----	T. H. Russell and -----	Northfield, Vt -----	
20079	Horse-shoes, machine for making -----	Amos Morrill -----	Strafford, Vt. -----	Oct. 12, 1858.
20441	Horse-shoes, machine for making -----	John McCarty -----	Philadelphia, Penn -----	April 27, 1858.
	Iron and steel, compounds for hardening. (See Class IV, letter C.) -----	C. H. Perkins -----	Putnam, Conn. -----	June 1, 1858.
19836	Iron and steel, hardening -----	George J. Farmer -----	Birmingham, England -----	Apl. 6, 1858. England Aug. 23, 1856.
21863	Iron, cast, manufacturing car-wheels of -----	George S. Bosworth, assignor to Anson Atwood.	Troy, N. Y. -----	Oct. 19, 1858.
22476	Iron, cast, mercury bottle -----	Moses Wrangle, assignor to Hunter, Kel- ler, & Co.	New York, N. Y -----	Dec. 28, 1858.
20009	Iron, cast or wrought, preserving surfaces of. (See Class IV, letter P.) -----			
	Iron cooking utensils, hollow cast -----	Adam V. Van Hovenbergh -----	South Side, N. Y -----	April 20, 1858.



*List of patents for inventions, 1858—Class II.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21844	Iron, furnace for melting. (See Class V, letter F.)	James Noble.....	Monongahela borough, Pa.	Oct. 19, 1858.
19799	Iron railroad chairs, manufacture of wrought. (See Class X, letter C.)	W. A. Stephens and R. Jenkins.....	Covington, Ky	Mar. 30, 1858.
21772	Iron railing, construction of. (See Class IX.)	David A. Morris.....	Pittsburg, Penn	Oct. 12, 1858.
21817	Iron, rolls for planishing	Josephus Chandler.....	Attica, Ohio	Oct. 19, 1858.
21692	Iron, sheet, manufacture of	David A. Morris.....	Pittsburg, Pa	Oct. 5, 1858.
21616	Iron, sheet, rolls for making	John Moulson.....	Philadelphia, Pa	Sept. 28, 1858.
20280	Key-hole stock	R. K. Lee.....	Brooklyn, N. Y	May 18, 1858.
19017	Keys, safety drop for	Orestes Cleveland.....	New York, N. Y	Jan. 5, 1858.
19641	Knives, plated table, bolster for	Lyman Jennings.....	Erving, Mass	Mar. 16, 1858.
19614	Knives while grinding, holder for planing	Thomas C. Ball, assignor to A. S. Davis and H. C. Handerson.	Keene, N. H.	Mar. 16, 1858.
19786	Latch for doors	John L. Mason.....	New York, N. Y	Mar. 30, 1858.
19533	Lathe, chuck	John M. Perkins, assignor to Robert M. Patrick.	New York, N. Y	Mar. 2, 1858.
19564	Lock	Abraham Hoagland.....	Jersey City, N. J	Mar. 9, 1858.
19628	Lock	William Denney.....	Philadelphia, Pa	Mar. 16, 1858.
19879	Lock	E. M. Shaw.....	Baltimore, Md.	April 6, 1858.
20027	Lock	Ludwig Baier.....	Cincinnati, Ohio	April 27, 1858.
20476	Lock	J. A. Braden.....	La Grange, Ga	June 8, 1858.
20850	Lock	J. P. Lipps, assignor to George D. Baldwin.	Newark, N. J	July 6, 1858.
21193	Lock	Fayette Gould.....	Huntington, N. Y	Aug. 17, 1858.
21293	Lock	Hjalmar Winblad.....	West Hoboken, N. J	Aug. 24, 1858.
21346	Lock	John P. Lord.....	Manchester, N. H.	Aug. 31, 1858.
21543	Lock	Christian Ackerman.....	Newark, N. J	Sept. 21, 1858.
21636	Lock	Thomas L. Pye.....	New York, N. Y	Sept. 28, 1858.
21994	Lock	O. B. Thompson.....	Hudson, Ohio	Nov. 2, 1858.
22048	Lock	Linus Yale, jr.....	Philadelphia, Pa	Nov. 9, 1858.

22146	Lock	William Moore, assignor to George L. Cameron	Brooklyn, N. Y	Nov. 23, 1858.
22319	Lock	Charles S. Westcott	Chester C. H., S. C.	Dec. 14, 1858.
22425	Lock	Spencer Hiatt	New York, N. Y	Dec. 28, 1858.
21962	Lock, alarm. (See Class XXII, letter A.)	Joseph Hoffacker	Indianapolis, Ind.	
21689	Lock and key	L. H. Miller	New York, N. Y	Nov. 2, 1858.
21862	Lock, bank	Stephen C. Burlingame, assignor to himself and William Taylor.	Providence, R. I.	Oct. 5, 1858.
21947	Lock, bank	Lyman Derby	Warwick, R. I.	Oct. 19, 1858.
20716	Lock, bank and other	William Johnson	New York, N. Y	Nov. 2, 1858.
19927	Lock, chronometric	Amos Holbrook	Milwaukie, Wis	June 29, 1858.
20658	Lock, combination	Stuart Perry	Milford, Mass	April 13, 1858.
20524	Lock, door	Livonia Whitney	Newport, N. Y	June 22, 1858.
20571	Lock, door	John R. Marston	Toledo, Ohio	June 8, 1858.
21504	Lock, door	Jacob Kinzer	New York, N. Y	June 15, 1858.
20063	Lock for doors	James J. Hamilton	Pittsburg, Pa.	Sept. 14, 1858.
19208	Lock, pad	John Schneider	New Castle, Ind.	April 27, 1858.
22000	Lock, pad	E. M. and J. E. Mix, assignors to themselves and C. D. Johnson.	Chicago, Ill.	Jan. 26, 1858.
19815	Lock, permutation	J. H. Morse, assignor to himself and L. Patee.	Ithaca, N. Y	Nov. 2, 1858.
19527	Lock, piano	Nathaniel Wilton	Peoria, Ill	Mar. 30, 1858.
22057	Lock, safe	Obadiah Bayly, jr.	Boston, Mass.	Mar. 2, 1858.
22068	Lock, safe	Leger Diss	Dearborn, Ind.	Nov. 16, 1858.
21655	Locks, cam for throwing bolts in	Henry W. Covert	Utica, N. Y	Nov. 16, 1858.
21567	Metal bars, machine for cutting	Daniel R. Knowles	Rochester, N. Y	Oct. 5, 1858.
19945	Metal beams, connecting rigidly the ends of	Samuel Nowlan	Centre Groton, Conn.	Sept. 21, 1858.
19517	Metal pans, sheet, machine for forming	E. A. Smead	New York, N. Y	April 13, 1858.
22044	Metal pipe, machine for coiling	Peter L. Weimer	Tioga, Pa.	Mar. 2, 1858.
19090	Metal plates, bending, machine for	David Howell	Lebanon, Pa	Nov. 9, 1858.
19866	Metal plates, coated	Edmund Morewood and George Rogers	Louisville, Ky.	Jan. 12, 1858.
20846	Metal, punch for perforating	W. I. Granger, assignor to D. I. Lake and C. B. Brown.	Enfield, Great Britain.	April 6, 1858 ; England, July 27, 1855.
20446	Metal shafting, lathe for turning	William Sellers	Chicago, Ill.	July 6, 1858.
21749	Metal, sheet, machine for cross seaming	Lucien Fay	Philadelphia, Pa	June 1, 1858.
19677	Metallic cheese-hoop, casting	Timothy Brown	Cincinnati, Ohio	Oct. 12, 1858.
20118	Metallic nuts, making	S. W. Wood	Georgetown, N. Y	Mar. 23, 1858.
			Washington, D. C.	April 27, 1858.



*List of patents for inventions, 1858—CLASS II.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Metalllic surfaces, coating. (See Class IV, letter C.)			
20165	Metallic tubes, punching.....	Benjamin Mackerley .....	New Petersburg, Ohio.....	May 4, 1858.
20794	Metals, lathe for turning in.....	G. Henderson and J. Steet. . . . .	Allegheny, Pa.....	July 6, 1858.
19498	Metals, shaping and punching.....	Julius C. Dickey .....	Saratoga Springs, N. Y.....	Mar. 2, 1858.
	Metals, using graphite in reducing. (See Class IV, letter G.)			
22211	Nail-heads, machine for plating.....	William H. Van Gieson .....	Newark, N. J.....	Nov. 30, 1858.
20126	Nail-machine.....	H. Green and W. J. Gordon, assignors to Henry Green.	Philadelphia, Pa.....	April 27, 1858.
20312	Nail-machine .....	John L. Krauser, assignor to John L. Krauser and James Harper.	Reading, Pa.....	May 18, 1858.
20829	Nail-machine.....	H. W. Taylor.....	Birmingham, Pa.....	July 6, 1858.
19631	Nail-machine, cut .....	G. C. Grodhaus .....	Jamestown, Ohio.....	Mar. 16, 1858.
21198	Nail-plate feeder.....	John W. Hoard and Thomas A. Searle .....	Providence, R. I.....	Aug. 17, 1858.
21222	Nail-plate feeder.....	James H. Swett.....	Pittsburg, Pa.....	Aug. 17, 1858.
22238	Nail, wrought, machine .....	Adrian V. B. Orr and Gideon Bantz .....	Frederick, Md. ....	Dec. 7, 1858.
19993	Nails, clenching horse-shoe .....	James Houck.....	Green Castle, Ind.....	April 20, 1858.
20141	Nails, horse-shoe, machine for making.....	Tisdale Carpenter.....	Providence, R. I.....	May 4, 1858.
21213	Nails, machine for forging.....	S. S. Putnam .....	Boston, Mass.....	Aug. 17, 1858.
21005	Nails, manufacturing.....	John L. Krauser .....	Reading, Pa.....	July 27, 1858.
19364	Nails, tools for clenching.....	Darius J. Hendrickson .....	Otego, N. Y.....	Feb. 16, 1858.
19123	Nails, trunk, machine for covering the heads of.....	James P. Blake .....	Waterbury, Conn.....	Jan. 19, 1858.
21812	Nails, wrought, manufacture of.....	Otis Breden .....	St. Louis, Mo.....	Oct. 19, 1858.
	Needles, sewing. (See Class III, letter S.)			
	Needles, sewing, manufacture of. (See Class III, letter S.)			
21599	Nut-blanks, making.....	R. H. Cole.....	St. Louis, Mo.....	Sept. 28, 1858.
20145	Nut-machine .....	R. H. Cole.....	St. Louis, Mo.....	May 4, 1858.
21551	Nut-machine .....	R. H. Cole.....	St. Louis, Mo.....	Sept. 21, 1858.
21860	Nut-machine .....	S. H. Whitaker .....	Cincinnati, Ohio.....	Oct. 19, 1858.
22310	Nut-machine .....	Julius B. Savage .....	Southington, Conn. ....	Dec. 14, 1858.

21574	Nuts from unscrewing, mode of preventing.....	Samuel Noblet.....	Halifax, Pa.....	Sept. 21, 1858.
19670	Ore, machine for crushing.....	Nathaniel Conkling.....	Brooklyn, N. Y.....	Mar. 16, 1858.
20666	Ore-separator.....	H. P. Russ.....	Russville, Cal.....	June 22, 1858.
20756	Ore-separator.....	Hezekiah Bradford, assignor to Horatio Bogert.....	New York, N. Y.....	June 29, 1858.
22138	Ore-separator.....	L. Stadtmüller.....	Bristol, Conn.....	Nov. 23, 1858.
19338	Ore-washer.....	Henry Barnard.....	Morristown, N. Y.....	Feb. 16, 1858.
19556	Pin-sticking machine.....	Thaddeus Fowler.....	Waterbury, Conn.....	Mar. 9, 1858.
21541	Pin-sticking machine.....	Cornelius W. Van Vliet, assignor to the New England Pin Company.....	Winsted, Conn.....	Sept 14, 1858.
20171	Pipe, cast-iron.....	Clifford Pomroy.....	Pottsville, Pa.....	May 4, 1858.
19852	Pipe, coupling.....	W. Hudgin.....	Washington, D. C.....	April 6, 1858.
20717	Pipe, coupling.....	David Kahnweiler.....	Wilmington, N. C.....	June 29, 1858.
19944	Pipe, gas, conduit joint for.....	Charles Monson.....	New Haven, Conn.....	April 13, 1858.
19313	Pipe, lead, machine.....	Charles E. Rockwell.....	New York, N. Y.....	Feb. 9, 1858.
20387	Pipe, machine for cutting.....	M. Bowes, assignor to himself and George B. Waterhouse.....	Charlotte, N. C.....	May 25, 1858.
20407	Pipe-tongs.....	A. G. Coes.....	Worcester, Mass.....	June 1, 1858.
22157	Pipe-tongs.....	James R. Brown.....	Boston, Mass.....	Nov. 30, 1858.
21525	Pliers, making.....	Chester W. Sykes.....	New York, N. Y.....	Sept. 14, 1858.
20460	Pliers, manufacture of.....	Henry Wilkinson.....	Collinsville, Conn.....	June 1, 1858.
19843	Puddling-furnace.....	John P. and John Grove.....	Montour county, Pa..	April 6, 1858.
20743	Punch, brad.....	John Thorndike.....	North Weare, N. H.....	June 29, 1858.
20516	Punching-machine.....	David S. Sherman.....	Lowell, Mass.....	June 8, 1858.
20157	Quartz-crusher.....	William H. Howland.....	Sacramento, Cal.....	May 4, 1858.
21248	Quartz-crusher.....	A. J. Doolittle.....	Nevada township, Cal.....	Aug. 24, 1858.
20685	Quartz-mills. (See Class XIII, letter M.)	P. B. Tyler and W. Jones, and.....	Springfield, Mass.....	June 22, 1858.
19963	Quartz, &c., feeding to machines for crushing and grinding the same. (See Class XIII, letter C )	B. Lathrop, assignors to P. B. Tyler.....	Sandusky, Ohio.....	April 13, 1858.
20702	Riveting-machine.....	John A. Bailey, assignor to James Horner and James Ludlum.....	Boston, Mass.....	June 29, 1858.
20901	Rolling-mill.....	Giles Edwards.....	Johnstown, Pa.....	July 13, 1858.
21666	Rolling railway bars.....	J. H. Snyder.....	Troy, N. Y.....	Oct. 5, 1858.
20736	Rolling railway chairs.....	John Fritz.....	Johnstown, Pa.....	June 29, 1858.
21427	Safe, fire and burglar proof.....	Theodore Sharts.....	Albany, N. Y.....	Sept. 7, 1858.
	Safe, iron.....	Lewis Lillie.....	Troy, N. Y.....	



*List of patents for inventions, 1858—CLASS II.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Safe, plates for burglar-proof. (See Class V, letter S.)			
20544	Sash-holder .....	S. R. Brown.....	East Kingston, N. H.....	June 15, 1858.
20822	Sash-holder .....	E. S. Scripture.....	New Haven, Conn.....	July 6, 1858.
21483	Saw-filer .....	A. H. Burdine.....	Chulahoma, Miss.....	Sept. 14, 1858.
20945	Saw-filing machine.....	Heman How.....	Georgetown, Mass.....	July 20, 1858.
19265	Saw-gummer .....	N. F. Stone & W. C. Ward.....	Menard county, Ill.....	Feb. 2, 1858.
19835	Saw-gummer .....	M. Ernsberger.....	Bremen, Ohio.....	April 6, 1858.
21729	Saw-gummer .....	H. R. Wolf, assignor to himself, David Staples, & W. H. Watson.	Consolation, Ky.....	Oct. 5, 1858.
21935	Saw-gummer .....	Nelson Barlow.....	New York, N. Y.....	Nov. 2, 1858.
22260	Saw-set .....	J. P. Van Vleck .....	Cooksville, Wis.....	Dec. 7, 1858.
22256	Saw-set .....	Edward Marshall.....	New York, N. Y.....	Dec. 7, 1858.
	Saws, dressing. (See Class XIV.)			
20933	Saws, gin, machine for sharpening.....	A. H. Burdine.....	Chulahoma, Miss.....	July 20, 1858.
19244	Saws, gumming and jointing.....	Hosea O. Elmer.....	Mexico, N. Y.....	Feb. 2, 1858.
22040	Saws, machine for filing.....	Calvin & Byron D. Tabor .....	Ischua, N. Y.....	Nov. 9, 1858.
20330	Saws, machine for grinding .....	William Clemson .....	East Woburn, Mass.....	May 25, 1858.
22367	Scissors, manufacture of.....	Henry Havell.....	Newark, N. J.....	Dec. 21, 1858.
21531	Screw-cutter.....	Thomas Whitaker .....	Cincinnati, Ohio .....	Sept. 14, 1858.
0168	Screw-cutting, chuck for.....	Richard Nuttall & John Kirkpatrick.....	Allegheny, Pa.....	May 4, 1858.
19752	Screw-cutting machine .....	R. H. Cole.....	St. Louis, Mo.....	Mar. 30, 1858.
20619	Screwdriver, handle for .....	Oliver Bond .....	Buffalo, N. Y.....	June 22, 1858.
19162	Screwdriver, ratchet movement for .....	G. H. Talbot.....	Boston, Mass.....	Jan. 19, 1858.
19805	Screw, wood.....	J. M. Whiting and .....	New Bedford, Mass.....	Mar. 30, 1858.
21864	Screws from wire, lathe for cutting.....	G. F. Wilson.....	Providence, R. I.....	Oct. 19, 1858.
		G. W. Daniels, assignor to himself and A. Fuller.	Waltham Mass.....	
20036	Screws, machine for cutting.....	Philip Chapin .....	Baltimore, Md.....	April 27, 1858.
20789	Screws, machine for turning the heads and for nicking.	Ira Griggs, assignor to the Utica Screw Manufacturing Company.	Utica, N. Y.....	July 6, 1858.

21641	Screws, wood, cutting threads of.....	Henry L. Kendall & Homer P. Hunt, assignors to the New England Screw Co.	Providence, R. I.....	Sept. 28, 1858.
21438	Scythe-blade .....	S. D. Nelson.....	Pittsburg, Pa .....	Sept. 7, 1858.
19524	Scythes, manufacture of .....	Harvey Waters .....	Northbridge, Mass.....	Mar. 2, 1858.
19152	Seaming-machine, double.....	Luther E. Porter .....	Lake Mills, Wis.....	Jan. 19, 1858.
21546	Shears .....	Joseph A. Braden.....	La Grange, Ga.....	Sept. 21, 1858. Reissued Dec. 28, 1858.
22028	Shears for cutting sheet metal.....	Daniel Newton .....	Southington, Conn.....	Nov. 9, 1858.
21319	Shears, manufacturing.....	W. S. Butler .....	Rocky Hill, Conn .....	Aug. 31, 1858.
21368	Shovel-handles, bending. (See Class XIV, letter B.)	Isaac Rogers.....	Owego, N. Y .....	Aug. 31, 1858.
20975	Shutter-operator .....	H. I. Behrens, assignor to C. S. Pomeroy..	New York, N. Y .....	July 20, 1858.
21972	Soldering-iron .....	E. Manley.....	Marion, N. Y.....	Nov. 2, 1858.
19452	Soldering, machine for .....	Leander Shearer.....	Duncannon, Pa .....	Feb. 23, 1858.
20076	Spike-machine.....	Michael Loughran .....	Pittsburg, Pa .....	April 27, 1858.
22060	Spoons, machine for making.....	John P. Brinkerhoff.....	Brooklyn, N. Y .....	Nov. 16, 1858.
22441	Spring, door.....	Thomas J. Mayall .....	Roxbury, Mass.....	Dec. 28, 1858.
20338	Spring, window.....	Edward Doen.....	New Britain, Conn.....	May 25, 1858.
19747	Staple for blind slats .....	Byron Boardman.....	Norwich, Conn.....	Mar. 30, 1858.
19804	Steel and iron, tempering and hardening.....	Horace Vaughn.....	Providence, R. I.....	Mar. 30, 1858. England, Dec. 29, 1856.
21948	Steel car-springs, tempering. (See Class X, letter C.)	Joseph Dixon.....	Jersey City, N. J.....	Nov. 2, 1858.
21039	Steel, furnace for tempering. (See Class V, letter F.)	Henry Waterman.....	Brooklyn, N. Y .....	July 27, 1858.
19038	Steel, manufacturing.....	George W. Merk.....	Leavenworth, Kan.....	Jan. 5, 1858.
20700	Steel rollers, making .....	G. W. Cooper.....	Morenci, Mich .....	June 29, 1858.
21327	Tin, machine for bending .....	E. J. Dodge.....	Port Washington, Wis.....	Aug. 31, 1858.
20559	Tire, apparatus for heating. (See Class V, letter H.)	Iris Hobson .....	Stout's Grove, Ill .....	June 15, 1858.
19842	Tire, upsetting.....	Henry H. Gilmore.....	Boston, Mass.....	April 6, 1858.
19416	Tire, wheel, reducing.....	James Greenhalgh, jr.....	Burville, R. I.....	Feb. 23, 1858.
22155	Tongs, pipe.....	James Barton.....	Cleveland, Ohio.....	Nov. 30, 1858.
22466	Tool, expanding.....	William White.....	Newark, N. J.....	Dec. 28, 1858.
	Tool for cutting key-seats in wheels and pulleys.			
	Tools, making edge.....			



*List of patents for inventions, 1858—CLASS II.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19606	Tools to handles, attaching .....	J. Henn, assignor to himself, Anton Daul, & Leopold Lankan.	New Britain, Conn.....	Mar. 9, 1858.
19150	Tube-joint, gas.....	Charles Monson.....	New Haven, Conn.....	Jan. 19, 1858. Reis- issued Mar. 9, 1858.
20529	Tubing, soldered, machine for finishing.....	E. Jordan, assignor to Benedict & Burn- ham Manufacturing Company.	Waterbury, Conn .....	June 8, 1858.
20051	Tuyere.....	George W. Finch.....	Gibraltar, Wis .....	April 27, 1858.
22012	Tuyere, blacksmith's.....	Harvey S. Berry.....	Rutland, Vt .....	Nov. 9, 1858.
22111	Tuyere, blacksmith's.....	Benjamin E. Dixon.....	Marshall, Mich .....	Nov. 23, 1858.
19622	Vice .....	Charles B. Clark.....	Oriskany Falls, N. Y .....	Mar. 16, 1858.
19861	Vice-anvil for repairing T rails .....	S. Mason & E. M. Davis.....	Michigan City, Ind.....	April 6, 1858.
24961	Vice, gas-fitter's .....	Joseph S. Ford.....	Philadelphia, Pa .....	Nov. 2, 1858.
20043	Washers, machine for making.....	R. H. Cole .....	St. Louis, Mo .....	April 27, 1858.
21359	Welding bellows-pipe.....	A. Pearsall.....	Nashville, Tenn.....	Aug. 31, 1858.
21286	Wire and steel, tempering .....	Henry Waterman.....	Brooklyn, N. Y.....	Aug. 24, 1858.
21866	Wire-riddles, tools for manufacturing .....	Sanford Adams .....	Boston, Mass .....	Oct. 26, 1858.
21635	Wire-springs for furniture, machine for making.	Charles A. & Solomon W. Young .....	Providence, R. I.....	Sept. 28, 1858.
19790	Wrench .....	Archibald Murray.....	Troy, N. Y .....	Mar. 30, 1858.
19954	Wrench.....	E. S. Scripture.....	New Haven, Conn.....	April 13, 1858.
20211	Wrench.....	James McKenzie.....	Green Island, N. Y .....	May 11, 1858.
20379	Wrench.....	George C. Taft.....	Worcester, Mass .....	May 25, 1858.
21196	Wrench.....	F. D. Haywood .....	Malden, Mass .....	Aug. 17, 1858.
22122	Wrench, screw .....	Joseph Hyde.....	Troy, N. Y .....	Nov. 23, 1858.
20291	Zinc, metallic, manufacture of.....	Alfred Monnier.....	Camden, N. J .....	May 18, 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19647	Bobbins, spinning.....	Alfred E. Nichols.....	Lowell, Mass.....	Mar. 16, 1858.
19231	Bonnet frames, machine for forming.....	Sewall H. Bowker.....	Worcester, Mass.....	Feb. 2, 1858.
20837	Bonnets and other articles of varying thickness, machinery for pressing straw.	H. E. West.....	Norton, Mass.....	July 6, 1858.
22100	Braiding-machine.....	Andrew B. Clemons, assignor to Birmingham Iron Foundry Company.	Derby, Conn.....	Nov. 16, 1858.
21568	Brush-cylinders for spreaders, cotton-gins, &c.....	A. M. Laupher.....	Gloucester, N. J.....	Sept. 21, 1858.
21685	Card, clothing.....	Richard Kitson.....	Lowell, Mass.....	Oct. 5, 1858.
19585	Carding-cylinders, clothing for.....	Charles G. Sargent and Francis A. Calvert.	Lowell, Mass.....	Mar. 9, 1858.
21364	Carding-machine.....	C. E. Price and J. Haythorne.....	Thompsonville, Conn.....	Aug. 31, 1858.
20037	Cloth, elastic, device for turning down the edges of.	Gilbert H. Chesbro.....	Stafford, Conn.....	April 27, 1858.
21930	Cloth, felt, forming bats for.....	Milton D. Whipple, assignor to Alfred B. Ely	Charlestown, Mass.....	Oct. 26, 1858.
19235	Cloth, felt, mode of forming the bat for making.	Thomas B. Butler.....	Norwalk, Conn.....	Feb. 2, 1858.
21931	Cloth, fulling, in the piece, machinery for.....	Milton D. Whipple, assignor to Alfred B. Ely	Charlestown, Mass.....	Oct. 26, 1858.
20695	Cloth, machine for turning selvages in.....	John T. Boyd.....	Charlestown, Mass.....	June 29, 1858.
20677	Cop-waste, machine for picking.....	A. A. Wood.....	Jersey City, N. J.....	June 22, 1858.
19554	Cord, plaited, machinery for manufacturing.....	Charles Feickert.....	New York, N. Y.....	Mar. 9, 1858.
20690	Cordage, braiding, machinery for.....	J. A. Bazin.....	Canton, Mass.....	June 29, 1858.
20691	Cordage, webbing, &c., manufacturing braided.....	J. A. Bazin.....	Canton, Mass.....	June 29, 1858.
19394	Cotton, &c., drawing.....	Cullen Whipple.....	Providence, R. I.....	Feb. 16, 1858.
21932	Cotton, combing, machinery for.....	Milton D. Whipple, assignor to Alfred B. Ely	Charlestown, Mass.....	Oct. 26, 1858.
20270	Cotton, machine for cleaning.....	Thomas Oliver.....	Yazoo City, Miss.....	May 18, 1858.
21270	Fabrics, elastic.....	John W. Newell.....	New Brunswick, N. J.....	Aug. 24, 1858.
20267	Fabrics, thick woven.....	John Gujer.....	Philadelphia, Penn.....	May 18, 1858.
20263	Fabrics, woven, tucked.....	Thomas France.....	New York, N. Y.....	May 18, 1858.
21164	Felting, machinery for forming bats for.....	Thomas B. Butler, assignor to Lounsberry, Bissell, & Co.	Norwalk, Conn.....	Aug. 10, 1858.
21771	Fibre from the pulp in hemp leaves, machines for separating the.	S. S. Mills.....	Charleston, S. C.....	Oct. 12, 1858.
21077	Fibre of wood, separating the.....	A. S. Lyman.....	New York, N. Y.....	Aug. 3, 1858.



## List of patents for inventions, 1858—CLASS III.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19600	Fibrous materials, machines for picking	Oliver Woodworth, jr., and John D. Page	East Hartford, Conn	Mar. 9, 1858.
21659	Folding guides	Alexander Douglas	New York, N. Y.	Oct. 5, 1858.
19041	Gin, cotton	James F. Orr	Orrville, Ala	Jan. 5, 1858.
19097	Gin, cotton	David G. Olmstead	Vicksburg, Miss	Jan. 12, 1858.
19324	Gin, cotton	Lewis J. Chichester, assignor to Henry G. Evans, Samuel Barstow, and Daniel Wintringham.	New York, N. Y.	Feb. 9, 1858.
19415	Gin, cotton	T. C. Garlington	La Fayette, Ala	Feb. 23, 1858.
19417	Gin, cotton	B. D. Gullett	Aberdeen, Miss	Feb. 23, 1858.
19598	Gin, cotton	F. L. Wilkinson	Adam's Run, S. C.	Mar. 9, 1858.
19679	Gin, cotton	Hiram W. Brown	Millville, N. J.	Mar. 23, 1858.
20120	Gin, cotton	James N. Wilson and George W. Payne	Memphis, Tenn	April 27, 1858.
20051	Gin, cotton	John Du Bois	Greensboro', Ala.	April 27, 1858.
20086	Gin, cotton	S. R. Parkhurst	New York, N. Y.	April 27, 1858.
20216	Gin, cotton	Enoch Osgood	Boston, Mass	May 11, 1858.
20747	Gin, cotton	J. A. Ventress	Woodville, Miss	June 29, 1858.
20904	Gin, cotton	Joshua Tetlow	Taunton, Mass	July 13, 1858.
21357	Gin, cotton	H. C. Parkhurst	New York, N. Y.	Aug. 31, 1858.
21582	Gin, cotton	John L. Tuttle	Bridensburg, Pa.	Sept. 21, 1858.
21714	Gin, cotton	A. Q. Withers	Byhalia, Miss	Oct. 5, 1858.
21795	Gin, cotton	Lewis S. Chichester, assignor to Henry G. Evans.	New York, N. Y.	Oct. 12, 1858.
22288	Hat-bodies, machinery for forming	Michael Hardy	New York, N. Y.	Dec. 14, 1858.
20602	Hat-bodies, machine for sizing	S. W. Wood	Washington, D. C.	June 15, 1858.
21382	Hat-body machinery	Alva B. Taylor	Newark, N. J.	Aug. 31, 1858.
19138	Hats, felt, machinery for forming brims of	William A. Fenn	Brookfield, Conn	Jan. 19, 1858.
19616	Hats, ventilating	James W. Beebe	New York, N. Y.	Mar. 16, 1858.
19255	Hem pbrake	Solomon P. Moore	Arrow Rock, Mo	Feb. 2, 1858.
20890	Hem pbrake	George M. Newell	Lexington, Mo.	July 13, 1858.
21513	Hem pbrake	H. D. McGeorge	Morgantown, Va.	Sept. 14, 1858.
21680	Hem pbrake	William C. Hutchinson	St. Joseph's, Mo.	Oct. 5, 1858.
21983	Hem pbrake	William Shelby	Waverley, Mo.	Nov. 2, 1858.

22399	Hemp , rake	Robert Heneage, assignor to himself and Edward O. Ball.	Buffalo, N. Y	Dec. 21, 1858.
21264	Hemp, machine for breaking	Samuel H. Little	St. Louis, Mo	Aug. 24, 1858.
20827	Hemp, Tampico, treatment of fibre of.	Werner Staufen	London, England	July 6, 1858.
19625	Hose, textile, manufacture of	L. B. Cooley and James C. Cooke	Middletown, Conn	Mar. 16, 1858; reissued Aug. 31, 1858.
20893	Knit gloves, manufacturing	James Peatfield	Ipswich, Mass.	July 13, 1858.
19370	Knitting-machine	Joseph K. and Edward E. Kilbourn	Norfolk, Conn.	Feb. 16, 1858.
19740	Knitting-machine	Joseph Vickerstaff, assignor to Martin Landenberger.	Philadelphia, Pa.	Mar. 23, 1858.
20854	Knitting-machine	N. P. Aiken	Troy, N. Y	July 13, 1858.
21045	Knitting-machine	J. P. Delahunty, assignor to himself and E. S. Ells, and E. S. Ells, assignor to Clark Tompkins.	Cohoes, N. Y	July 27, 1858.
21396	Knitting-machine	T. Lovelidge, assignor to himself and William Fulfirth.	Germantown, Pa.	Aug. 31, 1858.
21762	Knitting-machine	Joseph K., and Edward E. Kilbourn	Norfolk, Conn.	Oct. 12, 1858.
22004	Knitting-machine	Walter Aiken	Franklin, N. H.	Nov. 9, 1858.
22135	Knitting-machine	Frederick Schott	Brooklyn, N. Y	Nov. 23, 1858.
21566	Knitting-machines, needles for	Joseph K. Kilbourn and Edward E. Kilbourn	Pittsfield, Mass.	Sept. 21, 1858.
20044	Loom	George Crompton	Norfolk, Conn.	April 27, 1858.
20969	Loom	Joseph Welsh	Worcester, Mass.	July 20, 1858.
21098	Loom	Joseph Welsh	Philadelphia, Pa.	Aug. 3, 1858.
21448	Loom	E. M. Scott	Philadelphia, Pa.	Sept. 7, 1858.
21793	Loom for weaving hair-cloth	S. B. Chaffee, for himself and as administrator of S. M. Chaffee, deceased.	Auburn, N. Y	Oct. 12, 1858.
21312	Loom for weaving skirt-fringe	James Beck	Providence, R. I.	
22042	Loom, fringe	Samuel Walker	New York, N. Y	Aug. 31, 1858.
19719	Loom, hair-cloth, stop-motion for	R. J. Stafford	Roxbury, Mass.	Nov. 9, 1858.
19428	Loom, picker for	Zebulon Lyford	Smithfield, R. I.	Mar. 23, 1858.
22114	Loom, picker-staff for	Samuel Estes	Lowell, Mass.	Feb. 23, 1858.
22065	Loom, power	John Crawshaw	Newburyport, Mass.	Nov. 23, 1858.
19073	Loom, power, set-off motion for	Stephen O. Colvin	Rochester, N. Y	Nov. 16, 1858.
19664	Loom, power, set-off motion for	Newell Wyllys, assignor to himself and Charles Collins.	Coventry, R. I.	Jan. 12, 1858.
19698	Loom, ribbon	William J. Hartmann	South Glastonbury, Conn.	Mar. 16, 1858.
22420	Looms, shuttle-boxes for	A. F. Gibboney	Philadelphia, Pa.	Mar. 23, 1858.
21515	Looms, temples for	Robert Pilson	Union Township, Pa.	Dec. 28, 1858.
			Laurel, Md.	Sept. 14, 1858.



*List of patents for inventions, 1858.—CLASS III.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19270	Paper and other fabrics incorrodible, rendering. (See Class IV, letter P.)	Elisha Waters.....	Troy, N. Y.....	Feb. 2, 1858.
19045	Paper boxes, manufacturing angular.....	Stephen Rossman.....	Stuyvesant, N. Y.....	Jan. 5, 1858.
21004	Paper, machinery for manufacturing.....	J. C. Kneeland.....	Northampton, Mass.....	July 27, 1858.
21768	Paper, machinery for piling.....	John and Robert McMurray.....	New York, N. Y.....	Oct. 12, 1858.
21008	Paper making cylinders, constructing frames for wire-cloth.	T. Lindsay and.....	Westfield, Conn.....	July 27, 1858.
20355	Paper-making machine.....	W. Geddes.....	Seymour, Conn.....	May 25, 1858.
22401	Paper-pulp from reeds, preparing.....	Henry Lowe.....	Baltimore, Md.....	Dec. 21, 1858.
20277	Paper-pulp from wood, manufacture of.....	Charles Marzoni, assignor to J. Gandolfo.....	New York, N. Y.....	May 18, 1858.
20294	Paper-pulp, machine for grinding and sizing. }	Joseph Jordan, jr, and.....	East Hartford, Conn.....	May 18, 1858.
1161	Paper-pulp, preparation of fibre for.....	Thomas Eustice.....	Hartford, Conn.....	May 18, 1858.
20884	Paper-pulp, reducing wood fibre to.....	Martin Nixon.....	Philadelphia, Penn.....	Aug. 10, 1858.
20020	Paper-stock, from reeds.....	Henry Voelter.....	Heidenheim, Wurtemberg, Germany.	Aug. 29, 1856.
20766	Pasteboard and paper, manufacture of leather }	Henry Lowe.....	Foreign patent.....	July 13, 1858.
19623	Rollers, drawing.....	Adolphe Nicolas Mathieu, assignor to.....	Baltimore, Md.....	April 20, 1858.
21238	Rolls, calendar.....	M. J. A. Guiet.....	Paris, France.....	April 13, 1855.
19133	Rope, machinery for making.....	Seth P. Spencer, assignor to himself, S. S. Spencer, and Harris Boardman.	France.....	June 29, 1858.
22150	Rope-machine.....	Gardner G. Clark.....	Lancaster, Penn.....	Mar. 16, 1858.
19015	Rope-yarn, machine for tairing.....	Newton Adams.....	Providence, R. I.....	Aug. 24, 1858.
19059	Sewing-machine.....	William Coutie.....	Lansingburg, N. Y.....	Jan. 19, 1858.
19080	Sewing-machine.....	John Stewart, assignor to Charles Wall.....	Troy, N. Y.....	Nov. 23, 1858.
19072	Sewing-machine.....	D. W. Clark.....	Brooklyn, N. Y.....	Jan. 5, 1858.
19129	Sewing-machine.....	George Felter, assignor to himself and Ed- ward Jones.	Bridgeport, Conn.....	Jan. 5, 1858.
		Alexander Douglas.....	Philadelphia, Penn.....	
		D. W. Clark.....	New York, N. Y.....	Jan. 12, 1858.
		D. W. Clark.....	Bridgeport, Conn.....	Jan. 12, 1858.
		D. W. Clark.....	Bridgeport, Conn.....	Jan. 19, 1858.

19171	Sewing-machine.....	Amos H. Boyd, assignor to Oliver D. Boyd.	Saco, Maine.....	Jan. 19, 1858.
19141	Sewing-machine.....	Daniel Harris.....	Boston, Mass.....	Jan. 19, 1858.
19155	Sewing-machine.....	James and Amos W. Sangster.....	Buffalo, N. Y.....	Jan. 19, 1858.
19135	Sewing-machine.....	Martial Dimock and Nathan Rixford.....	Mansfield Centre, Conn.....	Jan. 19, 1858.
19285	Sewing-machine.....	Benjamin J. Angell.....	Attleborough, Mass.....	Feb. 9, 1858.
19409	Sewing-machine.....	D. W. Clark.....	Bridgeport, Conn.....	Feb. 23, 1858.
19439	Sewing-machine.....	Abner N. Newton.....	Richmond, Ind.....	Feb. 23, 1858.
19535	Sewing-machine.....	Amos W. Sangster, assignor to V. M. Rice, James Sangster, and Eliza Remington.	Buffalo, N. Y.....	Mar. 2, 1858.
19532	Sewing-machine.....	Joshua Gray, assignor to himself and.....	Medford, Mass.....	Mar. 2, 1858.
19612	Sewing-machine.....	George O. Brastow.....	Somerville, Mass.....	Mar. 9, 1858.
19660	Sewing-machine.....	Charles Raymond, assignor to Willford H. Nettleton.	Bristol, Conn.....	Mar. 9, 1858.
19662	Sewing-machine.....	Joseph E. Hendrick, assignor to himself and William Holmes.	Brooklyn, N. Y.....	Mar. 16, 1858.
19665	Sewing-machine.....	Sidney Parker, assignor to himself, Leonard Westbrook, and Hugh Herringshaw.	New York, N. Y.....	Mar. 16, 1858.
19684	Sewing-machine.....	Joshua Gray, assignor to himself and T. B. Mackay.	Boston, Mass.....	Mar. 16, 1858.
19732	Sewing-machine.....	Fayette S. Coates.....	New York, N. Y.....	Mar. 23, 1858.
19723	Sewing-machine.....	D. W. Clark, assignor to H. L. Clark.....	Bridgeport, Conn.....	Mar. 23, 1858.
19793	Sewing-machine.....	James and Amos W. Sangster.....	Buffalo, N. Y.....	Mar. 23, 1858.
19823	Sewing-machine.....	O. L. Reynolds.....	Dover, N. H.....	Mar. 30, 1858.
19876	Sewing-machine.....	Abraham Bartholf.....	New York, N. Y.....	April 6, 1858.
19903	Sewing-machine.....	Elliot Savage.....	Berlin, Conn.....	April 6, 1858.
19979	Sewing-machine.....	J. E. and J. C. and O. Atwood.....	Mansfield Centre, Conn.....	April 13, 1858.
20175	Sewing-machine.....	Charles F. Bosworth.....	Petersham, Mass.....	April 20, 1858.
20471	Sewing-machine.....	E. Harry Smith.....	New York, N. Y.....	May 4, 1858.
20413	Sewing-machine.....	C. A. Shaw, J. Clark, and.....	Biddeford, Me.....	June 1, 1858.
20481	Sewing-machine.....	D. T. Giveen, assignors to said Shaw & Clark.	Saco, Me.....	June 1, 1858.
20531	Sewing-machine.....	Martial Dimock.....	Mansfield, Conn.....	June 8, 1858.
20557	Sewing-machine.....	D. W. Clark.....	Bridgeport, Conn.....	June 8, 1858.
20686	Sewing-machine.....	A. W. Sangster, assignor to V. M. Rice, J. Thayer, J. Sangster, and Eliza Remington.	Buffalo, N. Y.....	June 8, 1858.
20684	Sewing-machine.....	A. C. Herron.....	Remsen, N. Y.....	June 15, 1858.
		Albert F. Johnson, assignor to himself and Francis F. Emery.	Boston, Mass.....	June 22, 1858.
		Heman S. Snow, assignor to himself and G. F. Snow.	Meriden, Conn.....	June 22, 1858.



*List of patents for inventions, 1858.—CLASS III.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20688	Sewing-machine.....	W. T. Barnes.....	Buffalo, N. Y.....	June 29, 1858.
20763	Sewing-machine.....	W. Miller, assignor to himself and W. P. Prescott.	Cambridge, N. Y.....	June 29, 1858.
20761	Sewing-machine.....	Thomas A. Dugdale, assignor to himself and John A. Burbank.	Richmond, Ia.....	June 29, 1858.
20699	Sewing-machine.....	Samuel Comfert, jr.....	Morrisville, Pa.....	June 29, 1858.
20753	Sewing-machine.....	H. B. West and H. F. Willson.....	Elyria, Ohio.....	June 29, 1858.
20739	Sewing-machine.....	E. Harry Smith.....	New York, N. Y.....	June 29, 1858.
20742	Sewing-machine.....	John Thomson.....	Worcester, Mass.....	June 29, 1858.
20773	Sewing-machine.....	R. M. Berry.....	New York, N. Y.....	July 6, 1858.
20775	Sewing-machine.....	L. R. Blake.....	South Abington, Mass.....	July 6, 1858.
21015	Sewing-machine.....	Charles Moore.....	Buffalo, N. Y.....	July 27, 1858.
21049	Sewing-machine.....	A. H. Hook, assignor to Union Sewing Machine Company.	New York, N. Y.....	July 27, 1858.
20994	Sewing-machine.....	Cornelius Donovan.....	Abington, Mass.....	July 27, 1858.
20990	Sewing-machine.....	Luman Carpenter.....	Oswego, N. Y.....	July 27, 1858.
21089	Sewing-machine.....	E. Harry Smith.....	New York, N. Y.....	Aug. 3, 1858.
21100	Sewing-machine.....	Darius Wheeler and Luman Carpenter.....	Oswego, N. Y.....	Aug. 3, 1858.
21129	Sewing-machine.....	J. E. A. Gibbs.....	Mill Point, Va.....	Aug. 10, 1858.
21230	Sewing-machine.....	J. S. Buell and W. T. Barnes, assignors to J. Forsyth, R. D. Rockwell, V. M. Rice, and W. T. Barnes.	Buffalo, N. Y.....	Aug. 17, 1858.
21224	Sewing-machine.....	P. P. Uhlinger.....	Philadelphia, Pa.....	Aug. 17, 1858; ante-dated May 3, 1858
21234	Sewing-machine.....	Timothy D. Jackson, assignor to Joseph W. Bartlett.	New York, N. Y.....	Aug. 17, 1858.
21250	Sewing-machine.....	R. B. Fitts and Milton D. Whipple.....	Charlestown, Mass.....	Aug. 24, 1858.
21299	Sewing-machine.....	Timothy D. Jackson, assignor to Joseph W. Bartlett.	New York, N. Y.....	Aug. 24, 1858.
21258	Sewing-machine.....	Elias Howe, jr.....	Brooklyn, N. Y.....	Aug. 24, 1858.
21322	Sewing-machine.....	D. W. Clark.....	Bridgeport, Conn.....	Aug. 31, 1858.
21310	Sewing-machine.....	Solomon Andrews.....	Perth Amboy, N. J.....	Aug. 31, 1858.

21465	Sewing-machine.....	S. C. Blodgett, assignor to G. B. Sloat & Co.	Philadelphia, Pa.....	Sept.	7, 1858.
21402	Sewing-machine.....	Bryan Atwater.....	Berlin, Conn. ....	Sept.	7, 1858.
21461	Sewing-machine.....	J. B. Woodruff.....	Washington, D. C.....	Sept.	7, 1858.
21466	Sewing-machine.....	Miles L. Clinton, assignor to H. F. Hibbard.	Ithaca, N. Y.....	Sept.	7, 1858.
21537	Sewing-machine.....	G. W. Hubbard, assignor to himself, W. Hubbard, and W. L. and N. S. Bradley.	Meriden, Conn. ....	Sept.	14, 1858.
21592	Sewing-machine.....	Jonas Hinkley, assignor to himself and F. A. Wildman.	Huron, Ohio. ....	Sept.	21, 1858.
21722	Sewing-machine.....	Joseph E. Hendrick, assignor to himself, W. H. Nettleton, and George Stevens.	Bristol, Conn.....	Oct.	5, 1858.
21713	Sewing-machine.....	Joseph White.....	Troy, N. Y.....	Oct.	5, 1858.
21672	Sewing-machine.....	Daniel Harris.....	Boston, Mass.....	Oct.	5, 1858.
21669	Sewing-machine. (No. 4).....	William O. Grover.....	Boston, Mass.....	Oct.	5, 1858.
21670	Sewing-machine. (No. 1).....	William O. Grover.....	Boston, Mass.....	Oct.	5, 1858.
21671	Sewing-machine. (No. 5).....	William O. Grover.....	Boston, Mass.....	Oct.	5, 1858.
21751	Sewing-machine.....	James E. A. Gibbs.....	Mill Point, Va.....	Oct.	12, 1858.
21800	Sewing-machine.....	W. Millar, assignor to himself and John Nutt.	Chicago, Ill.....	Oct.	12, 1858.
21752	Sewing-machine. (No. 3).....	William O. Grover.....	Boston, Mass.....	Oct.	12, 1858.
21745	Sewing-machine.....	Chauncey O. Crosby.....	New Haven, Conn.....	Oct.	12, 1858.
21833	Sewing-machine.....	George W. Hubbard.....	West Meriden, Conn.....	Oct.	19, 1858.
21929	Sewing-machine.....	A. W. Sangster, assignor to V. M. Rice, J. Thayer, J. Sangster, and E. Remington.	Buffalo, N. Y.....	Oct.	26, 1858.
22050	Sewing-machine.....	Samuel Comfort, jr., assignor to himself and Francis H. Jackson.	Morrisville, Pa.....	Nov.	9, 1858.
22007	Sewing-machine.....	O. and Z. W. Avery.....	Bethany, Pa.....	Nov.	9, 1858.
22045	Sewing-machine.....	Calvin D. Wheeler.....	New York, N. Y.....	Nov.	9, 1858.
22148	Sewing-machine.....	James Perry, assignor to J. C. Noe.....	New York, N. Y.....	Nov.	23, 1858.
22137	Sewing-machine.....	James H. Spencer and Thomas Lamb.....	Philadelphia, Pa.....	Nov.	23, 1858.
22143	Sewing-machine.....	Hiram W. Harkness, assignor to himself and Willford H. Nettleton.	Bristol, Conn.....	Nov.	23, 1858.
22179	Sewing-machine.....	Albert H. Hook.....	New York, N. Y.....	Nov.	30, 1858.
22160	Sewing-machine.....	Serrington S. Burnet and William Broderick, assignors to themselves and Robert H. Morford.	Chicago, Ill.....	Nov.	30, 1858.
22220	Sewing-machine.....	Charles Raymond, assignor to.....	Brattleboro', Vt.....	Nov.	30, 1858.
22269	Sewing-machine.....	W. H. Nettleton.....	Bristol, Conn.....	Dec.	7, 1858.
		S. G. Tyler, assignor to himself, G. J. Laage, and J. W. Barnum.	Quincy, Ill.....		



List of patents for inventions, 1858—CLASS III.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22225	Sewing-machine .....	Robert M. Berry.....	New York, N. Y.....	Dec. 7, 1858.
22240	Sewing-machine .....	Samuel F. Pratt .....	Roxbury, Mass .....	Dec. 7, 1858.
22264	Sewing-machine .....	John First, assignor to himself and James Frost.	New York, N. Y .....	Dec. 7, 1858.
22255	Sewing-machine .....	John Mackenzie .....	Cleveland, O.....	Dec. 7, 1858.
22226	Sewing-machine .....	Robert H. Bishop.....	Bristol, Conn .....	Dec. 7, 1858.
22273	Sewing-machine .....	J. E. Atwood.....	Mansfield Centre, Conn .....	Dec. 14, 1858.
22275	Sewing-machine .....	Amos H. Boyd.....	Saco, Me.....	Dec. 14, 1858.
20664	Sewing-machine, cabinet for .....	F. A. Ross and W. H. Marshall .....	New York, N. Y.....	June 22, 1858.
20245	Sewing-machines, guides for .....	L. W. Serrell, assignor to John Harold .....	Brooklyn, N. Y .....	May 11, 1858.
21355	Sewing machines, hemming guides for .....	Henry B. Odiorne.....	Philadelphia, Pa.....	Aug. 31, 1858.
21361	Sewing-machines, oiling the thread for .....	T. W. Pepper.....	New York, N. Y.....	Aug. 31, 1858.
20006	Sewing-machines, operating.....	Phineas J. Steer .....	Washington, D. C .....	April 20, 1858.
21398	Sewing-machines, regulating the tension of the thread in.	John T. B. Rogers, assignor to George B. Sloat.	New York, N. Y.....	Aug. 31, 1858.
20409	Sewing-needles .....	James Cottrill .....	Studley, England.....	June 1, 1858; Eng-land, Dec. 28, 1857.
22140	Sewing-needles, manufacture of .....	Henry Walker.....	London, England.....	Nov. 23, 1858; Eng-land, May 19, 1858.
19283	Sewing-silk, manufacturing.....	H. Relsea, assignor to himself and Henry Dunklee, assignors to D. B. and J. C. Fuller .....	Antrim, N. H.....	Feb. 2, 1858.
21068	Shirred goods, machinery for manufacturing. (See Class IV, letter S.)	James Eaton .....	New York, N. Y.....	Aug. 3, 1858.
22221	Shuttles, cop tubes for.....	N. J. Willis, assignor to S. Chase and George A. Fuller.	Townsend Harbor, Mass....	Nov. 30, 1858.
21556	Silk for use with felting substances, preparing. (See Class IV, letter P.)	Ira Dimock .....	Lawrence, Mass .....	Sept. 21, 1858.
21481	Silk or other thread according to its size, machine for sorting.	Ernest Bredt .....	Mansfield Centre, Conn .....	Sept. 14, 1858.
	Skirting material, manufacture of.....		New York, N. Y.....	

22262	Spindles for throstle spinning .....	Cyriel E. Brown, assignor to himself, John Tenney, and John Rhodes.	Millbury, Mass.....	Dec. 7, 1858.
20285	Spindles, machine for applying cop tubes to....	John Marland .....	Lawrence, Mass .....	May 18, 1858.
20920	Spinning-frame .....	A. Houghton, assignor to himself and E. D. and G. Draper.	Putnam, Conn .....	July 13, 1858.
19161	Spinning-machine.....	William W. Spafford .....	Peterboro, N. H.....	Jan. 19, 1858.
21333	Spinning-machine, top rollers for .....	Charles Green .....	Salem, Mass. ....	Aug. 31, 1858.
19531	Spinning-machines, machine for regulating the supply of roving to.	John B. Winslow .....	New Bedford, Mass.....	Mar. 2, 1858.
21242	Spinning-mules .....	J. H. Brickill .....	Taunton, Mass. ....	Aug. 24, 1858.
19011	Spinning oakum .....	Smith Baldwin .....	St. Louis, Mo.....	Jan. 5, 1858.
20925	Thread, machinery for polishing.....	B. Richardson, assignor to himself and the Hayden Manufacturing Company.	Haydenville, Mass.....	July 13, 1858.
21487	Warp-dresser guides of glass or other plastic anti-corrosive material, moulds for making.	Alfred B. Carey .....	Franklin, Conn.....	Sept. 14, 1858.
21488	Warp-dressing guides.....	Alfred B. Carey .....	Franklin, Conn.....	Sept. 14, 1858.
20190	Warp, dressing and sizing .....	William Bradley .....	Manchester, Va.....	May 11, 1858; additional improvement Dec. 21, 1858.
21988	Wool and other fabrics for spinning, preparing.	Waterman Smith .....	Manchester, N. H.....	Nov. 2, 1858.
19816	Wool, machine for burring.....	T. Musgrave, assignor to Anna L. Musgrave.	Leeds, Mass.....	Mar. 30, 1858.
21538	Wool, machinery for drawing and twisting... }	John W. Kennedy and John T. Plummer, assignors to themselves and	Plainfield, Conn.....	Sept. 14, 1858.
21116	Wool, &c., operating the teeth of cylinders for burring.	John Batchelder.....	Lisbon, Conn.....	
	Woollens, &c., solutions for cleansing. (See Class IV, letter C.)	Thomas B. Butler.....	Norwalk, Conn.....	Aug. 10, 1858.
19690	Yarn, roving or, regulators for .....	Daniel Dermond.....	Philadelphia, Pa.....	Mar. 23, 1858.



CLASS IV.—CHEMICAL PROCESSES, MANUFACTURES, AND COMPOUNDS, including medicines, dyeing, color-making, distilling, soap and candle making, mortars, cements, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20755	Acid, obtaining pure sulphurous.....	Joseph Albrecht, assignor to Charles E. Ruth.	New Orleans, La.....	June 29, 1858.
21711	Acids, fatty, apparatus for manufacturing.....	M. Werk .....	Cincinnati, Ohio.....	Oct. 5, 1858.
21922	Aluminum, preparation of .....	Luigi Ferrari Corbelli and Vincent Riatti, assignors to L. F. Corbelli..	Florence, Tuscany .....	Oct. 26, 1858.
21923	Aluminum and calomel, manufacture of.....	Luigi Ferrari Corbelli and Vincent Riatti, assignors to L. F. Corbelli..	Duchy of Modena .....	Oct. 26, 1858.
20488	Beer, manufacture of, apparatus for .....	George Habich.....	Roxbury, Mass .....	June 8, 1858.
21882	Candles, machine for making.....	John Jones.....	Baltimore, Md.....	Oct. 26, 1858.
21706	Candles, manufacture of.....	Joel H. Tatum.....	New York, N. Y.....	Oct. 5, 1858.
21697	Caoutchouc, tools for manufacturing goods of..	Dubois D. Parmelee.....	New York, N. Y.....	Oct. 5, 1858.
21122	Caoutchouc, treatment of .....	Austin G. Day.....	Seymour, Conn.....	Aug. 10, 1858; reissued Nov. 9, 1858.
22115	Carbon, mode of baking articles composed of..	De Grasse B. Fowler .....	New York, N. Y.....	Nov. 23, 1858.
20047	Carbon, sulphuret of, apparatus for manufacturing.	Edouard Deiss .....	Paris, France.....	Apr. 27, 1858; France, Nov. 13, 1855.
21158	Cement for roofing purposes.....	Joseph Thompson .....	North Wrentham, Mass....	Aug. 10, 1858.
20985	Cement, water-proof .....	Abraham Brower .....	New York, N. Y.....	July 27, 1858.
20758	Charcoal, converting peat into .....	J. Burrows Hyde, assignor to Anna M. Hyde.	New York, N. Y.....	June 29, 1858.
20661	Cleansing woollens, &c., solutions for.....	E. F. Prentiss.....	Philadelphia, Pa.....	June 22, 1858.
20697	Coating metallic surfaces .....	William and William A. Butcher .....	Philadelphia, Pa.....	June 29, 1858.
21797	Coating metals.....	Selah Hiler, assignor to John M. and Cornelius A. Berrian.	Haverstraw, N. Y.....	Oct. 12, 1858.
20383	Composition for artificial leather.....	Samuel Whitmarsh .....	Northampton, Mass.....	May 25, 1858.
19778	Composition for coating telegraph wires.....	J. Burrows Hyde.....	New York, N. Y.....	Mar. 30, 1858.
21285	Composition for miniature cases, &c.....	Mark Tomlinson.....	Birmingham, Conn. ....	Aug. 24, 1858.
22233	Composition for purifying gas .....	Paul B. Goddard.....	Philadelphia, Pa.....	Dec. 7, 1858.
19756	Composition for tanning leather .....	Clinton Daniels.....	Elkhorn, Wis.....	Mar. 30, 1858.
22285	Composition for tanning leather .....	William W. Garge .....	Rochester, N. Y .....	Dec. 14, 1858.
20320	Composition for varnishing leather .....	O. S. Boyden and M. C. Frederick .....	Newark, N. J.....	May 25, 1858.

20569	Composition ivory fram e.....	J. M. Legare.....	Aiken, S. C .....	June 15, 1858.
19802	Composition, mastic .....	Joseph Thompson.....	North Wrentham, Mass....	Mar. 30, 1858.
	Composition roofing cement. (See Class IX, letter R.)			
2246	Composition, water-proof cork.....	Andrew Stevens .....	New York, N. Y .....	Dec. 7, 1858.
21778	Compositions used as building materials.....	N. C. Raymond .....	Austin, Texas .....	Oct. 12, 1858.
19710	Compounds for hardening iron and steel.....	Charles Pauvert .....	Targé, France.....	Mar. 23, 1858.
21033	Compounds for protecting trees from insects ...	W. W. Taylor.....	Dartmouth, Mass.....	July 27, 1858.
21023	Compounds for treating potato rot.....	Lyman Reed .....	Baltimore, Md.....	July 27, 1858.
22407	Distillation, destructive, apparatus for.....	Luther Atwood.....	Brooklyn, N. Y .....	Dec. 28, 1858.
21693	Distillation of fresh water from salt water.....	A. Normandy.....	London, England.....	Oct. 5, 1858.
22408	Distillation of wood, &c., destructive, appara- tus for.	Luther Atwood.....	Brooklyn, N. Y .....	Dec. 28, 1858.
19210	Distillation, preparing mash for .....	George Seitz.....	Easton, Pa.....	Jan. 26, 1858.
20026	Distilling coal, &c., revolving retorts for .....	David Alter and Samuel A. Hill.....	Freeport, Pa .....	April 27, 1858.
20562	Distilling oil, apparatus for .....	John Howarth.....	Salem, Mass.....	June 15, 1858.
20587	Distilling oil from coal, retorts for.....	T. D. Sargent.....	Washington, D. C .....	June 15, 1858.
21143	Distilling oil from coal, retorts for.....	J. and W. B. McCue .....	Freeport, Pa .....	Aug. 10, 1858.
20371	Distilling spirit of turpentine, apparatus for....	Daniel Reid .....	Washington, N. C .....	May 25, 1858.
20465	Distilling turpentine, apparatus for.....	Leonard Bellingrath, jr., assignor to D. and W. McLaurin and James W. Strange.	Fayetteville, N. C .....	June 1, 1858.
	Dough, raising. (See Class XVII, letter D.)			
19184	Dyeing yarn in the skein, apparatus for.....	Mathew Delany .....	Clinton, Mass .....	Jan. 26, 1858.
19701	Dyeing yarn parti-colored.....	David B. Kerr .....	New York, N. Y .....	Mar. 23, 1858.
20034	Evaporating brine, apparatus for .....	Dennis Brigham .....	New York, N. Y .....	April 27, 1858.
20631	Evaporating cane-juice, pans for.....	D. M. Cook.....	Mansfield, Ohio.....	June 22, 1858.
20687	Evaporating vessels, arrangement of steam- coils in.	H. O. Ames.....	New Orleans, La.....	June 29, 1858.
	Fluids, burning, manufacture of. (See Class V, letter B.)			
	Fuel, artificial, manufacture of. (See Class V, letter F.)			
20438	Gas-apparatus .....	E. J. Mannville and S. G. Blackman .....	Waterbury, Conn.....	June 1, 1858.
21072	Gas, apparatus for condensing and purifying....	A. Hendrickx, assignor to Victoria Hen- drickx.	New York, N. Y .....	Aug. 3, 1858.
		Henry Lyles.....	Washington, D. C .....	Aug. 10, 1858.
21142	Gas, apparatus for generating .....	Allen B. Wilson .....	Waterbury, Conn.....	Oct. 26, 1858.
21914	Gas, apparatus for generating.....	John Absterdam.....	Boston, Mass.....	June 15, 1858.
20534	Gas, apparatus for manufacturing.....	William Beaumont.....	Paterson, N. J .....	June 15, 1858.
20541	Gas, apparatus for manufacturing.....			



List of patents for inventions, 1858.—CLASS IV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21095	Gas, apparatus for purifying.....	Andrew Walker .....	Claremont, N. H.....	Aug. 3, 1858.
21096	Gas, apparatus for purifying.....	John Waterhouse.....	Little Falls, N. Y.....	Aug. 3, 1858.
21121	Gas, apparatus for purifying.....	W. F. Danowsky .....	Allentown, Pa.....	Aug. 10, 1858.
22391	Gas, apparatus for purifying.....	Andrew Walker .....	Claremont, N. H.....	Dec. 21, 1858.
21001	Gas apparatus, valves of.....	August Hendrickx .....	New York, N. Y.....	July 27, 1858.
20110	Gas, carbonic acid, apparatus for generating....	Thomas Warker .....	New York, N. Y.....	April 27, 1858.
19777	Gas-generator .....	John G. Hock.....	Newark, N. J .....	Mar. 30, 1858.
20177	Gas-generator .....	William N. Taylor.....	Philadelphia, Pa.....	May 4, 1858.
20897	Gas-generator .....	G. W. R. Seal .....	Winchester, Va.....	July 13, 1858.
19686	Gas-generators, method of cleansing.....	Saunders Coates .....	New York, N. Y.....	Mar. 23, 1858.
22463	Gas, illuminating, apparatus for generating.....	Charles N. Tyler.....	Washington, D. C.....	Dec. 28, 1858.
21027	Gas, illuminating, production of.....	J. Milton Sanders .....	Cincinnati, Ohio.....	July 27, 1858.
19575	Gas, manufacture of.....	David C. Knab .....	Paris, France.....	Mar. 9, 1858; Fr'nce, Mar. 30, 1849.
20453	Gas, manufacture of.....	John L. Stewart .....	East Boston, Mass .....	June 1, 1858.
20130	Gas-metre .....	Thomas Shaw, assignor to himself and C. S. Patterson.	Philadelphia, Pa.....	April 27, 1858.
21663	Gas-metre .....	Joseph E. Fisk.....	Salem, Mass.....	Oct. 5, 1858.
20680	Gas-metre, dry, valves for .....	C. C. Lloyd, assignor to W. Hopper and R. H. Gratz.	Philadelphia, Pa.....	June 22, 1858.
20058	Gas-metre, liquids for .....	H. P. Gengembre.....	Rock Island, Ill .....	April 27, 1858.
22267	Gas-metre, valves for.....	Robert M. Potter.....	New York, N. Y.....	Dec. 7, 1858.
20625	Gas-regulator .....	John H. Cooper.....	Philadelphia, Pa.....	June 22, 1858.
21048	Gas-regulator .....	Charles F. Holzer, assignor to William B. Smith and William Bromwell.	Philadelphia, Pa.....	July 27, 1858.
21022	Gas-regulator .....	J. H. Powers.....	Newark, N. J.....	July 27, 1858.
21281	Gas-regulator .....	W. G. Sterling .....	Bridgeport, Conn.....	Aug. 24, 1858.
21544	Gas-regulator .....	Salmon Bidwell, assignor to the New York Car and Steamboat Gas Company.	Chicago, Ill.....	Sept. 21, 1858.
21765	Gas-regulator .....	William Mallerd.....	Bridgeport, Conn.....	Oct. 12, 1858.
20375	Gas-retort .....	J. T. Sloan, Volney Smith, Manuel Hoover, and R. M. Briggs.	Jackson, Cal.....	May 25, 1858.

20448	Gas-retort.....	W. A. Simonds.....	Chelsea, Mass.....	June 1, 1858.
20671	Gas-retort.....	C. N. Tyler.....	Washington, D. C.....	June 22, 1858.
21169	Gas-retort.....	Alfred Marsh, assignor to himself, E. H. Covell, J. Q. Dudley, and R. Holmes.	Detroit, Mich.....	Aug. 10, 1858.
22434	Gas-retort.....	William H. Laubach.....	Philadelphia, Pa.....	Dec. 28, 1858.
20567	Gas, retort for generating.....	W. H. Laubach.....	Philadelphia, Pa.....	June 15, 1858.
19655	Gas-retort, portable.....	John W. Smith.....	Washington, D. C.....	Mar. 16, 1858.
19900	Gas-retort, portable.....	Davis L. Weatherhead and J. T. Henry, assignors to themselves, John M. Smith, and William P. Campbell.	Philadelphia, Pa.....	April 6, 1858.
21887	Gasometer.....	G. W. Kraft.....	Philadelphia, Pa.....	Oct. 26, 1858.
20988	Gasometers, method of counterpoising.....	P. T. Burtis.....	Chicago, Ill.....	July 27, 1858.
19668	Graphite in reducing metals, using.....	Joseph Weisman.....	Philadelphia, Pa.....	Mar. 16, 1858.
21761	Lubricating car-axles. (See Class X, letter A.)			
21974	Malt liquors, apparatus for preserving.....	John Keane.....	New York, N. Y.....	Oct. 12, 1858.
	Manure-beds, preparing.....	Charles Spieker.....	New York, N. Y.....	April 13, 1858; England, Aug. 19, 1857.
	Mash-tubs, heating, apparatus for. (See Class V, letter H.)			
21835	Mercury, bottles for containing.....	Isaac G. Johnson.....	Spuyten Duyvel, N. Y.....	Oct. 19, 1858.
22152	Oils, kettles for trying.....	J. L. Alberger.....	Buffalo, N. Y.....	Nov. 30, 1858.
22406	Oils, pyrogenic, manufacture of.....	Luther Atwood.....	Brooklyn, N. Y.....	Dec. 28, 1858.
21805	Oils, &c., volatile, extraction of, from coal.....	Luther Atwood.....	Brooklyn, N. Y.....	Oct. 19, 1858.
20205	Paint-compound.....	William G. Huyett.....	Williamsburgh, Pa.....	May 11, 1858.
19014	Paint-vehicles.....	A. C. Church.....	Union City, Mich.....	Jan. 5, 1858.
20993	Paints.....	J. S. D'Orsey.....	New York, N. Y.....	July 27, 1858.
21810	Paints, composition for.....	James H. Beardsley.....	New York, N. Y.....	Oct. 19, 1858.
22015	Paper and other fabrics incorrodible, rendering.....	Thomas G. Chase.....	Philadelphia, Pa.....	Nov. 9, 1858.
19657	Preparing silk for use with felting substances.....	Anson Taylor.....	Brooklyn, N. Y.....	Mar. 16, 1858.
22185	Preservation of flesh for food.....	Nathan B. Marsh.....	Cincinnati, Ohio.....	Nov. 30, 1858.
	Preserving fruit. (See Class XVII, letter F.)			
22132	Preserving surfaces of cast or wrought iron.....	Charles Francis Leopold Oudry.....	Paris, France.....	Nov. 23, 1858.
22249	Preventing incrustation of steam-boilers.....	John Warren Harnett.....	Cincinnati, Ohio.....	Dec. 7, 1858.
19036	Process of dyeing silk, &c.....	Nicholas Mary Ainé.....	Philadelphia, Pa.....	Jan. 5, 1858.
19948	Process of extracting fat oils from seeds.....	John Preston.....	Dorchester, Mass.....	April 13, 1858.
20048	Processes for extracting fatty matters.....	Edouard Deiss.....	Paris, France.....	April 27, 1858; France, Nov. 13, 1855.
20353	Production of electrotype-plates.....	Silas P. Knight.....	New York, N. Y.....	May 25, 1858.
20760	Rectifying, apparatus for.....	Ethan Campbell, assignor to Henry Thayer.....	Cambridgeport, Mass.....	June 29, 1858.
20967	Rectifying, apparatus for.....	G. Waters and J. W. Harnett.....	Cincinnati, Ohio.....	July 20, 1858.



## List of patents for inventions, 1858.—CLASS IV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20938	Rendering lard, kettles for. (See Class V, letter K.)	Gustavus Cuppers.....	College Point, N. Y.....	July 20, 1858; reissued, Aug. 24, 1858.
22265	Rubber goods, hard, manufacture of.....	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass.....	Dec. 7, 1858.
22218	Rubber goods, vulcanized, manufacture of.....	Thomas J. Mayall, assignor to himself and G. N. Davis.	Roxbury, Mass.....	Nov. 30, 1858.
19172	Rubber, hard, manufacture of.....	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass.....	Jan. 19, 1858.
20678	Rubber, restoring waste vulcanized.....	Francis Baschnagel, assignor to himself and Beverly Rubber Company.	Beverly, Mass.....	June 22, 1858.
22217	Rubber, restoring waste vulcanized.....	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass.....	Nov. 30, 1858.
20242	Rubber, utilizing waste vulcanized.....	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass.....	May 11, 1858.
22038	Shirred goods, machinery for manufacturing.....	Richard Solis.....	New Brunswick, N. J.....	Nov. 9, 1858.
22330	Skins, artificial, manufacture of. (See Class XVI, letter S.)	William H. Manning, assignor to himself and Lucius H. Olmsted.	Owego, N. Y.....	Dec. 14, 1858.
19754	Soap, machine for cutting.....	Dalrymple Crawford.....	Toronto, Canada.....	Mar. 30, 1858; reissued, Dec. 14, 1858.
19667	Soap, manufacture of.....	Campbell Morfit.....	Baltimore, Md.....	Mar. 16, 1858.
19960	Soap, process of making.....	C. D. Van Allen and S. Avery.....	Baldwinsville, N. Y.....	April 13, 1858.
20382	Soda-fountain.....	E. D. Wheeler.....	Murfreesborough, Tenn.....	May 25, 1858.
22460	Soda-water apparatus, portable.....	Samuel T. Stratton.....	Philadelphia, Pa.....	Dec. 28, 1858.
20966	Starch, manufacture of.....	J. Von Schwarz.....	Nuremberg, Bavaria.....	July 20, 1858; Bavaria, May 22, 1854.
	Stearite articles, manufacture of.....			
	Sugar-cane, Chinese, mill for treating. (See Class XIII, letter M.)			
22126	Sugar-juices, furnace for evaporating.....	Louis Lefebvre.....	New Orleans, La.....	Nov. 23, 1858
22307	Sugar-juices, furnace for evaporating.....	F Roy.....	Parish of St. Bernard, La.....	Dec. 14, 1858.

19515	Sugar-kettles, method of setting.....	Honoré Roth.....	Iberville, La.....	Mar. 2, 1858.
21786	Sugar, manufacture of.....	J. C. Tucker and L. Lanzaewert.....	San Francisco, Cal.....	Oct. 12, 1858.
20347	Sugar, manufacture of dextrine and.....	Theodore A. Hoffman.....	Beardstown, Ill.....	May 25, 1858.
19743	Sugar-mould carriages.....	C. E. Bertrand.....	Williamsburg, N. Y.....	Mar. 30, 1858.
20655	Sulphurets, metallic, treatment of.....	Alfred Monnier.....	Camden, N. J.....	June 22, 1858.
19991	Sulphuretted ores, treatment of.....	Isaac Gattman.....	Philadelphia, Pa.....	April 20, 1858.
19729	Vapor-burner, hydro-carbon. (See Class V, letter B.)	Damon R. Averill, assignor to himself and James F. Davis.	Pulaski, N. Y.....	Mar. 23, 1858.
21284	Vats, apparatus attached to steam-coils in.....	John Trageser.....	New York, N. Y.....	Aug. 24, 1858.
19771	White lead, apparatus for manufacturing.....	Henry Hannen.....	Dubuque, Iowa.....	Mar. 30, 1858.
20731	White lead, apparatus for manufacturing.....	Robert Rowland.....	New York, N. Y.....	June 29, 1858.
22036	White lead, manufacture of.....	Benjamin F. Smith.....	New York, N. Y.....	Nov. 9, 1858.
21915	Worts, apparatus for cooling.....	John Wilkins.....	Troy, N. Y.....	Oct. 26, 1858.
	Zinc, furnaces for manufacturing oxide. (See Class V, letter F.)			
	Zinc, metallic, manufacture of. (See Class II.)			

CLASS V.—CALORIFICS, comprising lamps, fire places, stoves, grates, furnaces for heating buildings, cooking apparatus, preparation of fuel, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20304	Baking and cooking, apparatus for.....	W. G. Ruggles.....	Worcester, Mass.....	May 18, 1858.
19636	Blow-pipe.....	Joseph Hollely.....	New York, N. Y.....	Mar. 16, 1858.
20546	Boilers, rotary, mode of heating.....	C. S. Buchanan.....	Ballston, N. Y.....	June 15, 1858.
21085	Boiling furnace and cooking-range, combined.....	William Resor.....	Cincinnati, Ohio.....	Aug. 3, 1858.
21297	Broiling, toasting, &c., apparatus for.....	H. W. Harkness and W. A. Terry, assignors to themselves and Joseph Sigourney.	Bristol, Conn.....	Aug. 24, 1858.
20305	Burners, devices for regulating by electricity the issue of gas from.	Charles W. Smith.....	Evans, N. Y.....	May 18, 1858.
21893	Burners, hydro-carbon vapor.....	A. M. Mace.....	Springfield, Mass.....	Oct. 26, 1858.
20558	Burning fluids, manufacture of.....	Levi L. Hill.....	Greenport, N. Y.....	June 15, 1858.



*List of patents for inventions, 1858—CLASS V.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21987	Candlesticks, &c	Samuel Slocomb	Cambridge, Mass	Nov. 2, 1858.
21884	Chimney-caps	Bernhard Kihlholz	St. Louis, Mo	Oct. 26, 1858.
22112	Chimney-caps	Charles Douglas	Cleveland, Ohio	Nov. 23, 1858.
21115	Chimneys, wind-guard for	Frederick M. Butler	New York, N. Y	Aug. 10, 1858.
20662	Coal ashes, &c., apparatus for sifting	L. H. Proctor	East Saugus, Mass	June 22, 1858.
19481	Coal, machine for breaking	Aquila Bolton	Port Carbon, Pa	Mar. 2, 1858.
19429	Coal, machine for splitting	John H. Lyon	Baltimore, Md	Feb. 23, 1858.
21559	Coal, machine for washing	Joseph P. Evans	Hazleton, Pa	Sept. 21, 1858.
19175	Coal-screens	George E. Hoyt and Frederick Nishwitz, assignors to George E. Hoyt.	Brooklyn, N. Y	Jan. 19, 1858.
20000	Coal-scuttle and ash-sifter, combined	Archibald McNeill	Washington, D. C	April 20, 1858.
19768	Coal, slating, machine for	T. Garretson	Pottsville, Pa	Mar. 30, 1858.
19249	Damper regulator	James How and Charles Copeland	Brooklyn, N. Y	Feb. 2, 1858.
22144	Dryer, grain and fruit	Charles A. Haskins and George Macardle, assignors to Joshua A. French and Eliza C. Tyrrell.	New York, N. Y	Nov. 23, 1858.
Fire-alarm apparatus, electro-magnetic. (See Class VIII, letter E.)				
Fire and burglar proof safes. (See Class II, letter S.)				
19358	Fire-box and grate	Jacob J. Folts	Buffalo, N. Y	Feb. 16, 1858.
22162	Fire-engine	Lysander Button and Robert Blake	Waterford, N. Y	Nov. 30, 1858.
20867	Fire-engines, force-pumps for	John N. Dennison	Newark, N. J	July 13, 1858.
20875	Fire-escape ladder	Joseph H. Grimsley	New Lexington, Ohio	July 13, 1858.
22324	Fire-escape ladder	John Withers.	Collinsville, Ill	Dec. 14, 1858.
Fire-ladder. (See Class XXII, letter F.)				
21094	Fireplaces	W. R. Warden	Boston, Mass	Aug. 3, 1858.
22410	Fuel, artificial, manufacture of	William A. Bradley and Jacob Bigelow	Washington, D. C	Dec. 28, 1858.
19942	Furnace	James McCracken	Bloomfield, N. J	April 13, 1858.
20836	Furnace	B. H. Washington	Hannibal, Mo	July 6, 1858.
19781	Furnace, air-heating	T. Dwight Ingersoll	Monroe, Mich	Mar. 30, 1858.
20640	Furnace, air-heating	John P. Hayes	Philadelphia, Pa	June 22, 1858.

22353	Furnace, bagasse.....	Felix Dounoy .....	Carrollton, La.....	Dec. 21, 1858.
22382	Furnace boiler .....	Evan Skelly.....	Plaquemine, La.....	Dec. 21, 1858.
20591	Furnace for burning bagasse, &c.....	Evan Skelly.....	Plaquemine, La.....	June 15, 1858.
22067	Furnace for burning coal-dust.....	G. B. Deppen and E. Levengood .....	Myerstown, Pa.....	Nov. 16, 1858.
22424	Furnace for burning lime .....	Thomas R. Hartell .....	Philadelphia, Pa.....	Dec. 28, 1858.
21724	Furnace for heating buildings..... Class IV, letter S.)	John Plant, assignor to himself and George H. Plant.	Washington, D. C .....	Oct. 5, 1858.
20616	Furnace for heating steam-boilers, &c.....	Gideon Bantz.....	Frederick, Md.....	June 22, 1858.
19277	Furnace for locomotives .....	O. W. Bayley, assignor to the Boston Locomotive Works.	Boston, Mass.....	Feb. 2, 1858.
20926	Furnace for manufacturing oxide of zinc ---- }	J. Wharton and.....	Philadelphia, Pa.....	July 13, 1858.
22257	Furnace for melting iron.....	N. Bartlett, assignors to Joseph Wharton.....	Bethlehem, Pa.....	} Dec. 7, 1858.
21828	Furnace for tempering steel.....	William McFarland.....	St. Louis, Mo.....	
22041	Furnace for tempering steel.....	Perry G. Gardiner.....	New York, N. Y.....	Oct. 19, 1858.
20316	Furnace grates.....	Joseph Thomas.....	New York, N. Y.....	Nov. 9, 1858.
19239	Furnace, hot air.....	A. J. Allen and W. S. Hudson.....	Paterson, N. J.....	May 25, 1858.
19683	Furnace, hot air.....	George Darby.....	Augusta, Me.....	Feb. 2, 1858.
20454	Furnace, hot-air.....	John Child.....	Elyria, Ohio .....	Mar. 23, 1858.
22173	Furnace, hot-air.....	J. Stuber and F. Frank.....	Utica, N. Y.....	June 1, 1858.
19502	Furnace, hot-air, register for.....	John R. Fergusson.....	Brooklyn, N. Y.....	Nov. 30, 1858.
19678	Furnace, hot-air, self-adjusting damper for.....	James W. Geddes .....	Baltimore, Md.....	Mar. 2, 1858.
	Furnace of steam-boilers. (See Class VI, letter B.)	Ebenezer Barrows, jr.....	Brooklyn, N. Y.....	Mar. 23, 1858.
21644	Furnace, steam-boiler.....	James Alcorn, jr.....	Charlestown, Mass.....	Oct. 5, 1858.
20667	Furnaces of boilers and stoves.....	Silas T. Savage.....	Albany, N. Y.....	June 22, 1858.
20351	Furnaces, &c, apparatus for separating the combustible from the incombustible gases or products of combustion in.	William D. Jones.....	Hagaman's Mills, N. Y.....	May 25, 1858.
19720	Gas-burner .....	D. Sullivan and M. McIntyre .....	Cincinnati, Ohio.....	Mar. 23, 1858.
19959	Gas-burner .....	William Tallman .....	Cincinnati, Ohio.....	April 13, 1858.
20584	Gas-burner .....	Amos H. Ray.....	Boston, Mass.....	June 15, 1858.
20626	Gas-burner .....	Robert Cornelius.....	Philadelphia, Pa.....	June 22, 1858.
21076	Gas-burner .....	F. C. Krause.....	New York, N. Y.....	Aug. 3, 1858.
21229	Gas-burner .....	William Wright.....	St. Louis, Mo.....	Aug. 17, 1858.
21497	Gas-burner .....	Lucien E. Hicks.....	New York, N. Y.....	Sept. 14, 1858.



*List of patents for inventions, 1858—Class V.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21586	Gas-burner.....	A. H. Wood.....	Boston, Mass.....	Sept. 21, 1858. Reissued Dec. 28, 1858.
21728	Gas-burner.....	J. F. Tozer, assignor to George W. Gregory	Binghamton, N. Y.....	Oct. 5, 1858.
21733	Gas-burner.....	Yarnall Bailey.....	Philadelphia, Pa.....	Oct. 12, 1858.
20604	Gas-burner, Argand.....	W. W. Batchelder, assignor to William J. Townsend.	New York, N. Y.....	June 15, 1858.
21090	Gas-burner, Argand.....	J. E. Stanwood.....	Malden, Mass.....	Aug. 3, 1858.
22331	Gas for heating and illuminating purposes, method of applying.	Calvin Pepper, assignor to himself and John G. Treadwell.	Albany, N. Y.....	Dec. 14, 1858.
19185	Gas-heating apparatus.....	P. S. Devlan.....	Cumden, N. J.....	Jan. 26, 1858.
22134	Grate-bars.....	Silas T. Savage.....	Albany, N. Y.....	Nov. 23, 1858.
21157	Gridiron, folding.....	J. H. Thomas.....	Newark, N. J.....	Aug. 10, 1858.
	Heater cover, sad-iron. (See Class XVII, letter S.)			
20939	Heater, steam.....	Chauncey A. Dickerman.....	New Haven, Ct.....	July 20, 1858.
19197	Heaters or coolers.....	John C. Hoadley.....	Lawrence, Mass.....	Jan. 26, 1858.
22109	Heating and ventilating buildings, apparatus for.	William H. Churchman.....	Janesville, Wis.....	Nov. 23, 1858.
19775	Heating apparatus.....	Francis L. Hedenberg.....	New York, N. Y.....	Mar. 30, 1858.
	Heating apparatus for the manufacture of cemented shoe-soles. (See Class XVI, letter S.)			
21185	Heating apparatus, steam.....	Henry G. Bulkley.....	Kalamazoo, Mich.....	Aug. 17, 1858.
20917	Heating buildings by combustion of gas or alcohol, radiators for.	J. H. Chester, assignor to M. A. Chester..	Cincinnati, Ohio.....	July 13, 1858.
21195	Heating mash-tubs, apparatus for.....	Adolph Hammer.....	Reading, Pa.....	Aug. 17, 1858.
20767	Heating tire, apparatus for.....	J. P. White, assignor to himself and F. Fox	Philadelphia, Pa.....	June 29, 1858.
20856	Ketles for rendering lard.....	John J. Bate.....	Brooklyn, N. Y.....	July 13, 1858.
19266	Lamp.....	John Stuber and Richard Hughes.....	Utica, N. Y.....	Feb. 2, 1858.
19896	Lamp.....	P. Plant, assignor to himself and P. Hannay	Washington, D. C.....	April 6, 1858.
19898	Lamp.....	Robert Steinman, assignor to himself and N. S. Wax.	Boston, Mass.....	April 6, 1858.

20159	Lamp .....	Edward F. Jones.....	Boston, Mass.....	May 4, 1858.
20134	Lamp.....	L. Bailey and.....	Charlestown, Mass.....	May 4, 1858.
21069	Lamp .....	R. Thayer.....	Boston, Mass.....	Aug. 3, 1858.
21344	Lamp .....	William Fulton.....	Cranberry, N. J.....	Aug. 31, 1858.
21576	Lamp .....	James P. and Ellen Kenyon.....	Brooklyn, N. Y.....	Sept. 21, 1858.
21627	Lamp .....	Christian Reichmann.....	Philadelphia, Pa.....	Sept. 28, 1858.
21617	Lamp .....	W. H. Racey.....	St. Augustine, Fla.....	Sept. 28, 1858.
22327	Lamp .....	William Mulholland.....	Brooklyn, N. Y.....	Dec. 14, 1858.
	Lamp .....	Nathaniel Cradit, assignor to Chester G. Robinson.....	Ripley, Ohio.....	
22409	Lamp .....	William W. Batchelder .....	New York, N. Y.....	Dec. 28, 1858.
20289	Lamp, aero-vapor burner for. ....	Oscar F. Morrill .....	Boston, Mass.....	May 18, 1858.
19885	Lamp attachment .....	William W. Wade and.....	Long Meadow, Mass.....	April 6, 1858.
20178	Lamp attachment for preventing smoke, &c.....	Charles Burnham.....	Springfield, Mass.....	May 4, 1858.
20977	Lamp, burner and wick-tube for vapor .....	Ralph Thomas.....	Hoboken, N. J.....	July 20, 1858.
		M. Safford, assignor to himself and G. P. Kinney.....	Boston, Mass.....	
22253	Lamp, burner for.....	Josee Johnson and Frederick Bailey.....	New York, N. Y.....	Dec. 7, 1858.
22230	Lamp, burner for.....	M. B. Dyott.....	Philadelphia, Pa.....	Dec. 7, 1858.
20232	Lamp, burner for vapor.....	Thomas Varney.....	San Francisco, Cal.....	May 11, 1858.
20296	Lamp, burner for vapor.....	John K. O'Neil.....	Kingston, N. Y.....	May 18, 1858.
20498	Lamp, burner for vapor.....	C. B. Loveless.....	Syracuse, N. Y.....	June 8, 1858.
21053	Lamp, burner for vapor.....	G. W. Randall, assignor to R. J. Todd.....	Boston, Mass.....	July 27, 1858.
21166	Lamp, burner for vapor.....	F. Heidrick, assignor to C. F. Clothier.....	Philadelphia, Pa.....	Aug. 10, 1858.
22270	Lamp, burner for vapor.....	E. M. Williams, assignor to himself and John Gabel.....	Philadelphia, Pa.....	Dec. 7, 1858.
22465	Lamp, burner for vapor.....	Sigourney Wales.....	Boston, Mass.....	Dec. 28, 1858.
20153	Lamp-burner, vapor.....	C. A. Greene.....	Boston, Mass.....	May 4, 1858.
20324	Lamp-burner, vapor.....	Daniel H. Carpenter.....	New York, N. Y.....	May 25, 1858.
20648	Lamp-burner, vapor.....	A. M. Mace.....	Springfield, Mass.....	June 22, 1858.
21239	Lamp-burner, vapor.....	Solomon Andrews .....	Perth Amboy, N. J.....	Aug. 24, 1858.
20746	Lamp, burning-fluid.....	Hiram Todd.....	Columbus, Ohio.....	June 29, 1858.
20641	Lamp, camphene.....	Elias J. Hale.....	Foxcroft, Me.....	June 22, 1858.
20748	Lamp caps, method of fastening the wick-tube in .....	W. W. Wade.....	Long Meadow, Mass.....	June 29, 1858.
22099	Lamp-case, locomotive.....	Irvin A. Williams.....	Utica, N. Y.....	Nov. 16, 1858.
20255	Lamp, electric.....	H. M. Collier and.....	Binghamton, N. Y.....	May 18, 1858.
20373	Lamp for burning coal-oil, &c.....	H. N. Baker .....	New York, N. Y.....	May 25, 1858.
20573	Lamp for lighting gas.....	George Rimmington .....	South Brooklyn, N. Y.....	June 15, 1858.
		Charles McIntosh.....	Jersey City, N. J.....	



## List of patents for inventions, 1858—CLASS V.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19287	Lamp, hydro-carbon vapor.	Robert R. Crosby	Boston, Mass.	Feb. 9, 1858.
19158	Lamp or candlestick and match-box combined.	Thomas Shanks	Baltimore, Md.	Jan. 19, 1858.
22311	Lamp-shade supporter.	William F. Shaw	Boston, Mass.	Dec. 14, 1858.
20283	Lamp, vapor.	H. N. Macomber	Kingston, N. Y.	May 18, 1858.
20386	Lamp, vapor.	Horatio Bateman, assignor to William F. Bateman.	Boston, Mass.	May 25, 1858.
20649	Lamp, vapor.	A. M. Mace	Springfield, Mass.	June 22, 1858.
20729	Lamp, vapor.	W. H. Racey	St. Augustine, Fla.	June 29, 1858.
20952	Lamp, vapor-burning.	Nicholas Mason	Chelsea, Mass.	July 20, 1858.
21890	Lamp-wicks	J. Y. Leslie	Brooklyn, N. Y.	Oct. 26, 1858.
20785	Lamps to lanterns, method of attaching.	John Fleming	Pittsburg, Pa.	July 6, 1858; add'l imp't Nov. 2, 1858.
19207	Lantern	Jacob H. Reighard	Birmingham, Pa.	Jan. 26, 1858.
19897	Lantern	Jacob H. Reighard, assignor to himself, John Bird, and David Challiner.	Birmingham, Pa.	April 6, 1858.
19845	Lantern	A. H. Golden	Lafayette, Ia.	April 6, 1858.
21521	Lantern	Stillman C. Spaulding	Rutland, Vt.	Sept. 14, 1858.
21485	Lantern attachment to caps.	Joseph C. Carey	New York, N. Y.	Sept. 14, 1858.
21209	Lantern for burning coal-oil.	Max Miller	Brooklyn, N. Y.	Aug. 17, 1858.
20302	Lantern, self-lighting and extinguishing.	Adolph Roesler and Charles Frey	Warsaw, Ill.	May 18, 1858.
19044	Lanterns, attachment for lighting	Albert C. Richard	Newtown, Conn.	Jan. 5, 1858.
20404	Mantel bar.	W. P. Chadwick	Edgartown, Mass.	June 1, 1858.
21271	Oven. (See Class XVII.)	G. Graves Otis	Yonkers, N. Y.	Aug. 24, 1858.
21147	Oven, bake.	William Pettet	New York, N. Y.	Aug. 10, 1858.
21620	Oven, baker's.	W. R. Nevins and J. J. Yates	New York, N. Y.	Sept. 28, 1858; England, Mar. 13, 1857.
21610	Ovens by steam, method of heating	Hamilton Lyon	Cincinnati, Ohio	Sept. 28, 1858.
19591	Radiator, hot water.	Thomas T. Tasker	Philadelphia, Pa.	Mar. 9, 1858.
22289	Radiator, steam	J. H. Holt and J. H. Gerould	Chicago, Ill.	Dec. 14, 1858.
20132	Radiator, syphonic.	Charles Williams, assignor to himself and Charles J. Shepard.	Brooklyn, N. Y.	April 27, 1858.

20064	Range and coal gas generator, combination cooking.	A. Hendricks	-----	Morrisania, N. Y.	-----	April 27, 1855.
21608	Range and heating apparatus, combined	Charles Kane	-----	New York, N. Y.	-----	Sept. 28, 1858.
22120	Range, cooking	Joshua Harrison	-----	New York, N. Y.	-----	Nov. 23, 1858.
19368	Range, water back for.	James Ingram	-----	New York, N. Y.	-----	Feb. 16, 1858.
21702	Ranges and stoves, cooking-boilers for.	Joseph Schmadel	-----	Dayton, Ohio	-----	Oct. 5, 1858.
20589	Reflector, light	William F. Shaw	-----	Boston, Mass.	-----	June 15, 1858.
20106	Registers and ventilators, warm-air	Edward A. Tuttle	-----	Brooklyn, N. Y.	-----	April 27, 1858.
21416	Roaster, coffee	Theodore Heerman	-----	Mitchellville, Tenn	-----	Sept. 7, 1858.
21845	Roaster, coffee	Charles J. C. Peterson	-----	Davenport, Iowa	-----	Oct. 19, 1858.
21387	Roasting coffee, apparatus for	Samuel Tower	-----	Grand Rapids, Mich.	-----	Aug. 31, 1858.
21119	Safe-doors, safety-guard for	John B. Cornell	-----	New York, N. Y.	-----	Aug. 10, 1858.
19111	Safe, match	John B. Greemer, assignor to himself and S. Dwight Humphrey.	-----	New York, N. Y.	-----	Jan. 12, 1858.
20989	Safe, plates for burglar-proof	Ira L. Cady, assignor to J. B. and W. W. Cornell & Co.	-----	New York, N. Y.	-----	July 27, 1858.
19923	Safe, water and fire proof	John T. Garlick	-----	New York, N. Y.	-----	April 13, 1858.
21405	Sifter, coal or ashes.	Louis D. Bartlett	-----	Boston, Mass.	-----	Sept. 7, 1858.
20909	Smoke-stack for steam vessels	William Webster	-----	Jefferson county, Washing- ton Territory.	-----	July 13, 1858.
19240	Stove	Rufus Dawes	-----	Washington, D. C.	-----	Feb. 2, 1858.
19796	Stove	S. T. Savage	-----	Albany, N. Y.	-----	Mar. 30, 1858.
20274	Stove	J. C. Henderson	-----	Albany, N. Y.	-----	May 18, 1858; re- sued Nov. 9, 1858.
20389	Stove	Charles Hoeffstatter, assignor to Joseph Firman.	-----	Rome, N. Y.	-----	May 25, 1858.
20466	Stove	J. S. Brown, assignor to himself and Joseph Kent.	-----	Washington, D. C.	-----	June 1, 1858.
21103	Stove	J. H. Wilkinson	-----	Concord, N. H.	-----	Aug. 3, 1858.
21084	Stove	Andrew Ralston	-----	West Middletown, Pa.	-----	Aug. 3, 1858.
21191	Stove	C. O. Foley	-----	Troy, N. Y.	-----	Aug. 17, 1858.
21446	Stove	S. T. Savage	-----	Albany, N. Y.	-----	Sept. 7, 1858.
21938	Stove	J. H. Buchanan	-----	New Concord, Ohio	-----	Nov. 2, 1858.
22250	Stove	Charles Hartwell	-----	Boston, Mass.	-----	Dec. 7, 1858.
22277	Stove	John S. Clark and Washington Harris	-----	Philadelphia, Pa.	-----	Dec. 14, 1858.
22276	Stove	John S. Clark	-----	Philadelphia, Pa.	-----	Dec. 14, 1858.
22342	Stove	R. W. Belson	-----	Philadelphia, Pa.	-----	Dec. 21, 1858.
22392	Stove	David Wells	-----	Lowell, Mass.	-----	Dec. 21, 1858.
22416	Stove	Nelson Edwards	-----	Chittenden county, Vt.	-----	Dec. 28, 1858.



List of patents for inventions, 1858—Class V.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21445	Stove, coal	S. T. Savage	Albany, N. Y.	Sept. 7, 1858.
21731	Stove, cook, hot-air	Joseph M. Babcock	Albany, N. Y.	Oct. 12, 1858.
19650	Stove, cooking, (A)	Christian Raub	Davenport, Iowa	Mar. 16, 1858.
19651	Stove, cooking, (B)	Christian Raub	Davenport, Iowa	Mar. 16, 1858.
19956	Stove, cooking	James Spear	Philadelphia, Pa.	April 13, 1858.
20265	Stove, cooking	R. D. Granger	Philadelphia, Pa.	May 18, 1858.
20450	Stove, cooking	James Spear	Philadelphia, Pa.	June 1, 1858.
20430	Stove, cooking	M. L. Horton	Claremont, N. H.	June 1, 1858.
20682	Stove, cooking	G. G. Richmond and G. W. Pittock, assignors to themselves and C. Phelps, and J. Lown and said Pittock assignors to D. B. Carver.	Troy, N. Y.	June 22, 1858.
20668	Stove, cooking	S. B. Spaulding	Brandon, Vt.	June 22, 1858.
20733	Stove, cooking	S. T. Savage	Albany, N. Y.	June 29, 1858.
21171	Stove, cooking	J. L. Stewart, assignor to Rudolph A. Nathurst.	Nashville, Tenn.	Aug. 10, 1858.
21518	Stove, cooking	Apollos Richmond	Brooklyn, Conn.	Sept. 14, 1858.
21900	Stove, cooking	John Pearson, jr.	Newburyport, Mass.	Oct. 26, 1858.
22121	Stove, cooking	Richard M. Hermance	Stillwater, N. Y.	Nov. 23, 1858.
22147	Stove, cooking	Gibson North, assignor to North, Chase, & North.	Philadelphia, Pa.	Nov. 23, 1858.
22223	Stove, cooking	F. C. Adams and Joseph Peckover	Cincinnati, Ohio	Dec. 7, 1858.
20133	Stove, cooking, oven for	James Easterly	Albany, N. Y.	April 27, 1858.
21046	Stove for burning soft coal	M. P. Dorsch, assignor to Peter Dorsch	New York, N. Y.	July 27, 1858.
19114	Stove, gas	Patrick Mihan, assignor to himself and Gilman Davis.	Boston, Mass.	Jan. 12, 1858.
21075	Stove, gas	M. W. Kidder	Lowell, Mass.	Aug. 3, 1858.
22335	Stove, gas-burning	Thomas Shaw, assignor to himself and C. S. Patterson.	Philadelphia, Pa.	Dec. 14, 1858.
19713	Stove-heating apparatus	David S. Quimby	Brooklyn, N. Y.	Mar. 23, 1858.
21447	Stove-lining, coal, construction of Stove, steam. (See Class VI, letter S.)	S. T. Savage	Albany, N. Y.	Sept. 7, 1858.

20415	Stove, wood-burning	M. G. Fagan	Troy, N. Y.	June 1, 1858.
21707	Stoves and furnaces, lining for coal	William B. Treadwell	Albany, N. Y.	Oct. 5, 1858.
21410	Stoves, coal, grates for	James Easterly	Albany, N. Y.	Sept. 7, 1858.
21467	Stoves, cooking, flues of elevated oven	James Easterly, assignor to himself and Dennis G. Littlefield	Albany, N. Y.	Sept. 7, 1858.
20919	Stoves, furnaces, &c., atmospheric regulator for	Birdsill Holly, assignor to himself and John S. Edwards.	Seneca Falls, N. Y.	July 13, 1858.
19436	Tongs, fire	Daniel Moore	Brooklyn, N. Y.	Feb. 23, 1858.
19089	Ventilating pulpits, apparatus for	James P. Herron	Huntsville, Ohio	Jan. 12, 1858.
20068	Warming-apparatus, steam	E. T. Ingalls and James R. Nichols	Haverhill, Mass.	April, 27, 1858.
21376	Warming device, feet	G. W. Smith	Aurora, Ind.	Aug. 31, 1858.

CLASS VI.—STEAM AND GAS ENGINES, including boilers and furnaces therefor, and parts thereof.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19601	Boiler, steam	Joseph Wood and H. N. Winans	Jersey City, N. J.	Mar. 9, 1858.
19621	Boiler, steam	Abner Clark	Fort Des Moines, Iowa	Mar. 16, 1858.
19669	Boiler, steam	Henry Whinfield	New York, N. Y.	Mar. 16, 1858.
20167	Boiler, steam	James Montgomery	Brooklyn, N. Y.	May 4, 1858.
20319	Boiler, steam	George W. Barnett	Springfield, Ohio	May 25, 1858.
20802	Boiler, steam	Alonzo R. Ketcham	Buffalo, N. Y.	July 6, 1858.
21017	Boiler, steam	Orrin Newton	Pittsburg, Pa.	July 27, 1858.
22303	Boiler, steam	Charles J. C. Petersen	Davenport, Iowa	Dec. 14, 1858.
22334	Boiler, steam	I. C. Stern, assignor to himself and G. W. Stone.	Philadelphia, Pa.	Dec. 14, 1858.
19493	Boilers, apparatus for supplying water to	John N. Dennison and Thomas Sealy	Newark, N. J.	Mar. 2, 1858; France, Aug. 26, 1857.
21040	Boilers, steam, alarm-gauge for	Joseph Whitmore	Lowell, Mass.	July 27, 1858.
21003	Boilers, steam, apparatus for regulating the supply of water to.	Talmon L. Jacobs	Hebron, Conn.	July 27, 1858.
20477	Boilers, steam, apparatus for supplying water to.	George Brodie	Little Rock, Ark.	June 8, 1858.
22271	Boilers, steam, device for preventing explosions in.	Jane H. Lloyd, executrix of Richard L. Lloyd, deceased, assignor to George T. Parry.	Philadelphia, Pa.	Dec. 7, 1858.



*List of patents for inventions, 1858—CLASS VI.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20380	Boilers, steam, feed-regulator for.....	Leonard Thorn.....	New York, N. Y.....	May 25, 1858.
22284	Boilers, steam, feed-water and blow-off apparatus for.....	Jacob Frick.....	Philadelphia, Pa.....	Dec. 14, 1858.
22169	Boilers, steam, furnaces for.....	F. P. Dimpfel.....	Philadelphia, Pa.....	Nov. 30, 1858; England, May 24, 1856.
20840	Boilers, steam, furnaces of.....	Henry Yates.....	Brantford, Canada.....	July 6, 1858.
21013	Boilers, steam, grates for.....	James Montgomery.....	Brooklyn, N. Y.....	July 27, 1858.
19568	Boilers, steam, preventing incrustation of. (See Class IV, letter P.)	William Kemble Hall.....	West Hoboken, N. J.....	Mar. 9, 1858; England, Nov. 12, 1855.
21991	Boilers, steam, safety apparatus for.....	Francis Stebbins.....	Hinsdale, N. H.....	Nov. 2, 1858.
22178	Boilers, steam, sediment collector for.....	Hiram H. Havens.....	New York, N. Y.....	Nov. 30, 1858.
20398	Boilers, steam, telephonic indicator for.....	Thomas P. Akers.....	Lexington, Mo.....	June 1, 1858.
21686	Boilers, steam, water-alarm for.....	Levi E. Lincoln.....	Lowell, Mass.....	Oct. 5, 1858.
21836	Boilers, steam, water-gauges for.....	Josee Johnson and Rufus Lapham.....	New York, N. Y.....	Oct. 19, 1858.
20927	Boilers, steam, &c., furnaces for heating. (See Class V, letter F.)	Horatio Allen.....	New York, N. Y.....	July 20, 1858.
20172	Condensers, tube-joints for.....	John C. Fr. Salomon.....	Baltimore, Md.....	May 4, 1858.
20613	Engine, air. (See Class XI, letter A.)	George Ambrose.....	New York, N. Y.....	June 22, 1858.
19100	Engine, gas, arrangement of.....	Lewis Peter.....	Gnadenhutzen, Ohio.....	Jan. 12, 1858.
19247	Engine, reciprocating rotary.....	Levi F. Goben.....	Spring Hill, Mo.....	Feb. 2, 1858.
19537	Engine, rotary steam.....	Alfred Arnold.....	New York, N. Y.....	Mar. 9, 1858.
19697	Engine, rotary steam.....	James B. Groomes.....	Carmichaels, Pa.....	Mar. 23, 1858.
19967	Engine, rotary steam.....	Levi Matthews, assignor to himself and J. K. Andrews.	Antrim, Ohio.....	April 13, 1858.
21494	Engine, rotary steam.....	John and Ezra Harthan.....	Timber's Brook, England.....	Sept. 14, 1858. England, Jan. 26, 1858.
20136	Engine, steam.....	Daniel Barnum.....	Jersey City, N. J.....	May 4, 1858.
20782	Engine, steam.....	John Ericsson.....	New York, N. Y.....	July 6, 1858.

21059	Engine, steam	H. & F. I. L. Blandy	Zanesville, Ohio	Aug. 3, 1858.
21165	Engine, steam	J. J. G. Collins, assignor to himself, W. A. Rhodes, and T. Drake.	Philadelphia, Pa.	Aug. 10, 1858.
21907	Engine, steam	C. A. Schultz	New York, N. Y.	Oct. 26, 1858.
22200	Engine, steam	Rufus Porter	Washington, D. C.	Nov. 30, 1858.
20533	Engine, steam, mode of applying the power of the.	J. Widmer, assignor to himself and H. Gilbert.	New Haven, Conn.	June 8, 1858.
19057	Engine, steam, oscillating	Adam Wood	Pittsburg, Pa.	Jan. 5, 1858.
19464	Engine, steam, oscillating	John S. Barden, assignor to himself and Aaron W. Rockwood.	New Haven, Conn.	Feb. 23, 1858.
21873	Engine, steam-pumping	Ezra Cope	Cincinnati, Ohio	Oct. 26, 1858.
19715	Engine, steam, revolving cylinder	Thomas Rogers	Philadelphia, Pa.	Mar. 23, 1858.
19098	Engine, steam, valve arrangement for	Nahum S. C. Parkins	Norwalk, Ohio	Jan. 12, 1858. Eng-land, Aug. 17, 1857.
21911	Engines, applying power to the cranks of	Thomas Stewart	Philadelphia, Pa.	Oct. 26, 1858.
21789	Engines, construction of cylinders and pistons for pumps and steam.	Wallace Wells	New York, N. Y.	Oct. 12, 1858.
19220	Engines, steam, arrangement of passages and valves for cushioning the pistons of.	Norman W. Wheeler	New York, N. Y.	Jan. 26, 1858.
19154	Engines, steam, cut-off for	A. P. Samuel	New York, N. Y.	Jan. 19, 1858.
21399	Engines, steam, cut-off for	J. Widmer, assignor to himself and H. Gilbert.	New Haven, Conn.	Aug. 31, 1858.
22344	Engines, steam, cut-off gear for	John Broughton	New York, N. Y.	Dec. 21, 1858.
22361	Engines, steam, cut-off gear for	P. W. Gates, D. R. Frazer, and Thomas Chalmers.	Chicago, Ill.	Dec. 21, 1858.
19890	Engines, steam, grates for	Ross Winans	Baltimore, Md.	April 6, 1858.
19888	Engines, steam, pistons for	Ross Winans	Baltimore, Md.	April 6, 1858.
19134	Engines, steam, variable cut-offs for	Addison Crosby	Fredonia, N. Y.	Jan. 19, 1858.
22189	Gauge-cock	R. L. Mills	Lancaster, Ohio	Nov. 30, 1858.
20726	Gauge-cock and alarm-whistle	Alexander Miller	Cleveland, Ohio	June 29, 1858.
20851	Gauge, magnetic steam	Joshua Lowe, assignor to himself and Daniel Barnum.	New York, N. Y.	July 6, 1858.
20848	Gauge, pressure	W. C. Grimes, assignor to David Matthew.	Philadelphia, Pa.	July 6, 1858.
19731	Gauge, steam	Franz Burckle, assignor to Edward H. Ashcroft.	Boston, Mass.	Mar. 23, 1858.
22287	Gauge, steam and water-alarm, for steam-boilers.	George W. Grader and Benjamin F. Cowan.	Memphis, Tenn.	Dec. 14, 1858.
19400	Gauge, steam-pressure	William Burnett, assignor to Seth Adams	Boston, Mass.	Feb. 16, 1858.



*List of patents for inventions, 1858—CLASS VI.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19177	Gauge, steam, spring-pressure.....	Moses M. Young, assignor to himself, Harvey F. Litchfield, and Joseph G. Hamblin.	East Boston, Mass.....	Jan. 19, 1858.
22313	Gauge, water, for steam-boilers.....	Thomas Stubblefield.....	Columbus, Ga.....	Dec. 14, 1858.
20894	Governor for steam engine.....	C. T. Porter.....	New York, N. Y.....	July 13, 1858.
21056	Governor for steam engine.....	Alban Anderson.....	Lancaster, Ohio.....	Aug. 3, 1858.
21475	Governor for steam engine.....	William W. Wood, assignor to John Rice.	Philadelphia, Pa.....	Sept. 7, 1858.
22380	Governor for steam engine.....	H. C. Sergeant.....	Columbus, Ohio.....	Dec. 21, 1858.
19995	Governor, steam.....	R. D. Jacobus.....	Newark, N. J.....	April 20, 1858.
	Heaters and coolers. (See Class V.)			
21699	Indicator, water, for steam-boilers.....	Martin Robbins and John L. Frisbie.....	Cincinnati, Ohio.....	Oct. 5, 1858.
20847	Indicators, water and steam.....	W. C. Grimes, assignor to David Matthew David Matthew.....	Philadelphia, Pa.....	July 6, 1858.
22439	Locomotive axle-bearings.....	Ross Winans.....	Philadelphia, Pa.....	Dec. 28, 1858.
20115	Locomotive boilers, fire-box of.....	Ross Winans.....	Baltimore, Md.....	April 27, 1858.
20117	Locomotive boilers, furnaces of.....	Ross Winans.....	Baltimore, Md.....	April 27, 1858.
19889	Locomotive engine.....	Ross Winans.....	Baltimore, Md.....	April 6, 1858.
19962	Locomotive engine.....	Ross Winans.....	Baltimore, Md.....	April 13, 1858.
21290	Locomotive engine.....	Ross Winans.....	Baltimore, Md.....	Aug. 24, 1858.
20114	Locomotive engine-boilers, fire-box of.....	Ross Winans.....	Baltimore, Md.....	April 27, 1858.
20116	Locomotive engines, boilers for.....	Ross Winans.....	Baltimore, Md.....	April 27, 1858.
19986	Locomotive engines, driving-wheels of.....	J. F. Elliott.....	New Haven, Conn.....	April 20, 1858.
20937	Locomotive engines, fire-boxes for.....	Leonard Crossman and Samuel Atkinson.....	Elizabeth City, N. J.....	July 20, 1858.
21021	Locomotive engines, grates for.....	Joseph W. Pole.....	Philadelphia, Pa.....	July 27, 1858.
21309	Locomotive engines, scraper for removing sparks from the smoke-stacks of.....	Jacob A. Alter.....	Johnstown, Pa.....	Aug. 31, 1858.
21936	Locomotive engines, trucks for.....	Levi Bissell.....	New York, N. Y.....	Nov. 2, 1858.
20596	Locomotive signals.....	A. E. Turnbull.....	Springfield, Ohio.....	June 15, 1858.
21130	Locomotive steam-engine.....	John C. Hagan.....	Nashville, Tenn.....	Aug. 10, 1858.
	Locomotives, furnaces for. (See Class V, letter F.)			
19469	Locomotives in engine-houses, arrangement for carrying off smoke from.	John O. D. Lilly, James L. Vauclain, and James W. Lilly.	Lafayette, Ind.....	Feb. 23, 1858.

19468	Locomotives, walking, manner of attaching legs to.	Solomon G. Hoge, assignor to himself, R. H. St. John, and J. E. Leas.	Belle Fontaine, Ohio.	Feb. 23, 1858.
19722	Pistons and piston-rod connexions	A. P. Samuel	New York, N. Y.	Mar. 23, 1858.
21678	Pistons for steam-engines, packing	Hanford Horton	New York, N. Y.	Oct. 5, 1858.
21687	Spark-arrester	Joseph Marks	Boston, Mass.	Oct. 5, 1858.
20835	Steam-alarm and safety apparatus.	S. W. Warren	Brooklyn, N. Y.	July 6, 1858.
21000	Steam, apparatus for distributing	Robert Hale	Roxbury, Mass.	July 27, 1858.
21237	Steam-boiler furnaces. (See Class V, letter F.)			
21237	Steam-cock	J. L. Winslow, assignor to J. N. Winslow.	Westbrook, Me.	Aug. 17, 1858.
21276	Steam-cock	R. Ross and W. Holland	Philadelphia, Pa.	Aug. 24, 1858.
21332	Steam-cock	Albert Fuller	Cincinnati, Ohio	Aug. 31, 1858.
19969	Steam-generator	George Scott, assignor to Scott, Todd, & Co.	Philadelphia, Pa.	April 13, 1858.
21788	Steam-generator.	F. C. Warlich.	Kentishtown, England.	Oct. 12, 1858; England, March 9, 1858.
22306	Steam-generator.	Robert E. Rogers	Philadelphia, Pa.	Dec. 14, 1858.
21489	Steam-hammer	Patrick Danvers	New York, N. Y.	Sept. 14, 1858.
21047	Steam-heating apparatus.	Thomas Gordon, assignor to Charles H. Bullard.	Trenton, N. J.	July 27, 1858.
19604	Steam, method of generating, in combination with atmospheric air as a motive power.	James Black, assignor to Scott, Todd, & Co.	Philadelphia, Pa.	Mar. 9, 1858.
20514	Steam-power metre	George Schuh.	Madison, Ind.	June 8, 1858.
21468	Steam-pressure and water indicator	William C. Grimes, assignor to David Matthew.	Philadelphia, Pa.	Sept. 7, 1858.
20963	Steam-stove	J. L. Sutton.	Norristown, Pa.	July 20, 1858; reissued Dec. 28, 1858.
21472	Steam-trap	J. W. Hoard, assignor to himself and G. B. Wiggin.	Providence, R. I.	Sept. 7, 1858.
22170	Steam-trap	Frank Douglas	East Liverpool, Ohio	Nov. 30, 1858.
19757	Steam-trap, balance	William M. Davis.	Philadelphia, Pa.	Mar. 30, 1858.
21183	Steam trip-hammer, operating	J. S. Bonney and	Hanson, Mass.	Aug. 17, 1858.
	Steam vessels, smoke-stack for. (See Class V, letter S)	C. W. Willard.	Bridgewater, Mass.	
	Steam-warming apparatus. (See Class V, letter W.)			
21694	Steam water-tank.	S. H. Yocum and James O'Byrne.	Shelbyville, Ind.	Oct. 5, 1858.
21366	Valve-cock	G. R. and H. S. Robinson	Clinton, Mass.	Aug. 31, 1858.
21510	Valve-cock	J. C. Macdonald.	Cincinnati, Ohio	Sept. 14, 1858.
21524	Valve, combination steam	Robert Stewart.	Elmira, N. Y.	Sept. 14, 1858.



*List of patents for inventions, 1858—CLASS VI.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19594	Valve for steam-engine.....	Isaac Van Doren.....	Somerville, N. J.....	Mar. 9, 1858.
21579	Valve for steam-engine, rotary.....	Thomas Stewart.....	Philadelphia, Pa.....	Sept. 21, 1858.
22198	Valve-gear of locomotive-engines.....	Charles J. C. Petersen.....	Davenport, Iowa.....	Nov. 30, 1858.
21295	Valve-gear of steam-engines.....	James Ferguson, assignor to himself and Lazelle, Perkins, & Co.	Bridgewater, Mass.....	Aug. 24, 1858.
22191	Valve-gear of steam-engines.....	Edward Moran.....	New York, N. Y.....	Nov. 30, 1858.
22321	Valve-gear of steam-engines.....	John L. Whetstone.....	Cincinnati, Ohio.....	Dec. 14, 1858.
22333	Valve-gear, slide, for oscillating-engines.....	William Stephens, assignor to Richard Stephens.	Old Forge, Pa.....	Dec. 14, 1858.
22318	Valve-gear, slide, of steam-engines.....	Elijah Ware.....	South Boston, Mass.....	Dec. 14, 1858.
20768	Valve-gearing for steam-engines.....	John F. Allen.....	New York, N. Y.....	June 29, 1858.
21433	Valve-governor for steam-engines.....	S. B. McCray.....	Grand Rapids, Mich.....	Sept. 7, 1858.
21535	Valve, pressure and vacuum.....	W. Hardy and J. Parkinson, assignors to themselves and Aaron Bates.	Philadelphia, Pa.....	Sept. 14, 1858.
20845	Valve-regulator.....	W. S. Gale, assignor to himself, A. A. Valentine, and W. H. Butler.	New York, N. Y.....	July 6, 1858.
19443	Valve, rotary.....	Thomas Richards.....	Plattsburg, N. Y.....	Feb. 23, 1858.
19570	Valve, safety.....	William H. Low.....	Albany, N. Y.....	Mar. 9, 1858.
21390	Valve, safety and pressure-gauge.....	James H. Winn.....	Portage, Wis.....	Aug. 31, 1858.
21493	Valve, slide, combination of a governor with.....	Richard Gornall.....	Baltimore, Md.....	Sept. 14, 1858.
19096	Valve, steam.....	William R. Michener.....	Marlboro', Ohio.....	Jan. 12, 1858.
20094	Valve, steam.....	Thomas Scott.....	San Francisco, Cal.....	April 27, 1858.
20423	Valve, steam.....	Henry Goulding.....	San Francisco, Cal.....	June 1, 1858.
21151	Valve, steam.....	George Rieseck.....	Pittsburg, Pa.....	Aug. 10, 1858.
21155	Valve, steam.....	W. J. Stevens.....	New York, N. Y.....	Aug. 10, 1858.
21235	Valve, steam.....	W. S. Mackintosh and S. Wadsworth, assignors to Cridge, Wadsworth, & Co.	Pittsburg, Pa.....	Aug. 17, 1858.
19484	Valve, steam, eccentric, for operating.....	Benjamin Carley.....	Paterson, N. J.....	Mar. 2, 1858.
19203	Valve, steam throttle.....	James W. Osgood.....	Columbus, Ohio.....	Jan. 26, 1858.
20388	Valve, steam trap.....	J. W. Hoard, assignor to himself and G. B. Wiggin.	Providence, R. I.....	May 25, 1858.
19933	Valve, throttle.....	T. S. La France.....	Elmira, N. Y.....	April 13, 1858.

19119	Valves and passages in cylinders of steam-engines, arrangement of.	E. D. Barrett.....	Cincinnati, Ohio.....	Jan. 19, 1858.
21813	Valves, cut-off, for steam-engines.....	Benjamin Bunce.....	New York, N. Y. ....	Oct. 19, 1858.
21300	Valves, cut-off, of steam-engines.....	J. Jackman, jr., assignor to himself and E. H. Ashcroft.	Newburyport, Mass.....	Aug. 24, 1858.
21682	Valves for steam-engines.....	Joseph Jobin.....	St. Mandi, France .....	Oct. 5, 1858; France, April 13, 1858.
21668	Valves for steam-engines, gearing of cut-off.....	P. W. Gates, D. R. Fraser, and Thomas Chalmers.	Chicago, Ill.....	Oct. 5, 1858.
19640	Valves in steam-engines, mode of operating.....	T. S. Jamieson .....	Alexandria, Va.....	Mar. 16, 1858.
22197	Valves of steam-engines.....	Alden R. Morrill.....	Northfield, Vt. ....	Nov. 30, 1858.
22322	Valves of steam-engines.....	H. D. Wicks. ....	Flint, Mich.....	Dec. 14, 1858.
22320	Valves of steam-engines, apparatus for operating	Norman W. Wheeler.....	Brooklyn, N. Y.....	Dec. 14, 1858.
22164	Valves of steam-engines, cut-off.....	I. M. Coleman .....	Milwaukee, Wis.....	Nov. 30, 1858.
21455	Valves of steam-engines, operating.....	H. Uhry and H. A. Luttgens.....	Paterson, N. J.....	Sept. 7, 1858.



CLASS VII.—NAVIGATION AND MARITIME IMPLEMENTS, comprising all vessels for conveyance on water, their construction, rigging and propulsion, diving-dresses, life-preservers, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19659	Anchor .....	William Williams.....	St. Louis, Mo.....	Mar. 16, 1858.
19638	Anchor and life-preserver, combined, floating--	Joseph Humphries .....	Washington, D. C.....	Mar. 16, 1858.
21298	Anchor-balls.....	H. W. Harkness, assignor to himself and J. W. Bliss.	Bristol, Conn.....	Aug. 24, 1858.
22432	Block, spring-tackle.....	Obed Hussey .....	Baltimore, Md.....	Dec. 28, 1858.
22154	Block, tackle .....	William B. Barnard.....	Waterbury, Conn.....	Nov. 30, 1858.
21602	Block, tackle, attachment for .....	George Focht.....	Reading, Pa.....	Sept. 28, 1858.
20944	Boat, canal.....	J. E. Gibson .....	Port Carbon, Pa.....	July 20, 1858.
21572	Boat, canal.....	John McCausland and.....	Kington, N. Y.....	Sept. 21, 1858.
19317	Boat, collapsible .....	Jefferson and James McCausland .....	Esopus, N. Y.....	Feb. 9, 1858; Eng-land, Dec. 3, 1857.
21979	Boat-davits, tripping-block for.....	Nathan Thompson, jr.....	Brooklyn, N. Y.....	Nov. 2, 1858.
19693	Boat, life. (See Life-boat.)	Charles Perley.....	New York, N. Y.....	Mar. 23, 1858.
19656	Boat, metallic .....	Joseph Francis .....	New York, N. Y.....	Mar. 16, 1858.
19666	Boat, propeller canal .....	George W. Swartz.....	Buffalo, N. Y.....	Mar. 16, 1858.
21201	Boats, arrangement of devices for lowering and detaching.	Henry De Veuve .....	Galveston, Texas .....	Mar. 16, 1858.
20308	Boats, canal, construction of .....	Anson Judson .....	Unadilla, N. Y.....	Aug. 17, 1858.
19346	Boats, moulding frame for the construction of..	Nathan Thompson, jr. ....	Brooklyn, N. Y.....	May 18, 1858.
19403	Boats, propelling canal .....	Herman Camp.....	Dunkirk, N. Y.....	Feb. 16, 1858.
21135	Cable-stopper.....	William H. Bridge.....	Boston, Mass.....	Feb. 23, 1858.
19131	Cable-stopper .....	Peter H. Jackson. ....	New York, N. Y.....	Aug. 10, 1858.
21296	Chain-cable stopper .....	John E. Crane.....	Lowell, Mass.....	Jan. 19, 1858.
19785	Chain-stopper.....	William H. Gray, assignor to himself and Albert G. Brown.	Dover, N. H.....	Aug. 24, 1858.
19949	Diving-bell .....	Benjamin Maillefert.....	Astoria, N. Y.....	Mar. 30, 1858.
19516	Dry-docks and marine railways, adjustable cradle for. (See Class IX, letter D )	A. C. Rand, and R. R. Johnson .....	Buffalo, N. Y.....	April 13, 1858.
	Fog-bell.....	Thomas Sheehan .....	Dunkirk, N. Y.....	Mar. 2, 1858.
	Grapples, submarine.....			

21949	Harpoon .....	George Doyle .....	Provincetown, Mass. ....	Nov. 2, 1858.
19363	Harpoon and lance.....	H. W. Harkness.....	Bristol, Conn. ....	Feb. 16, 1858.
21278	Harpoon-lance.....	Nathan Scolfield.....	Norwich, Conn. ....	Aug. 24, 1858.
21879	Hook, self-mousing .....	J. R. Henshaw .....	Middletown, Conn.....	Oct. 26, 1858.
20072	Life and treasure buoy.....	Francis D. Lee.....	Charleston, S. C. ....	April 27, 1858.
22258	Life-berth for vessels.....	James P. McLean.....	New York, N. Y. ....	Dec. 7, 1858.
19977	Life-boat.....	Leverett Ball.....	Auburn, N. Y. ....	April 20, 1858.
20374	Life-boat.....	A. L. Shears.....	Omri, Wis. ....	May 25, 1858.
21462	Life-boat constructed of mattresses .....	Jabez M. Woodward .....	New York, N. Y. ....	Sept. 7, 1858.
21570	Life-boat, expansible float for.....	Charles Legros.....	New York, N. Y. ....	Sept. 21, 1858.
21776	Life-preserver.....	Hiram Palmer.....	Augusta, Mich. ....	Oct. 12, 1858.
19989	Life-preserving bucket-raft.....	Charles French.....	Jersey City, N. J. ....	April 20, 1858.
19618	Life-preserving buoy .....	Benjamin Burling.....	Buffalo, N. Y. ....	Mar. 16, 1858.
19632	Life-preserving float.....	George W. Hamilton, assignor to himself and Oliver P. Bower.	Watkins, N. Y. ....	Mar. 16, 1858.
19350	Life-preserving mattress .....	C. P. Crossman & E. M. Quimby.....	Warren, Mass. ....	Feb. 16, 1858.
19593	Life-preserving raft of buoyant mattresses.....	W. Urquhart .....	New York, N. Y. ....	Mar. 9, 1858.
19216	Life-preserving raft, canvas sheets connected with.	Lorenzo Taggart.....	Philadelphia, Pa. ....	Jan. 26, 1858. Reis- sued March 2, 1858.
22467	Life-preserving trunk.....	Oliver E. Woods.....	Philadelphia, Pa. ....	Dec. 28, 1858.
22021	Life-preserving vests .....	T. A. Delano.....	New York, N. Y. ....	Nov. 9, 1858.
22175	Life-raft, extensible.....	Calvin Furbush.....	Kittery, Me. ....	Nov. 30, 1858.
20354	Marine alarm and fog-signal .....	Leon Lewenberg.....	New York, N. Y. ....	May 25, 1858.
20328	Paddle, reciprocating.....	P. C. Clark.....	Reading, Penn. ....	May 25, 1858.
19482	Paddle-wheel.....	Andrew Buchanan .....	New York, N. Y. ....	Mar. 2, 1858.
20096	Paddle-wheel .....	Nathan Smith.....	Berwick, La. ....	April 27, 1858.
20676	Paddle-wheel .....	George Wingate .....	Philadelphia, Penn. ....	June 22, 1858.
21826	Paddle-wheel.....	H. Ehrhart.....	Muscatine, Iowa.....	Oct. 19, 1858.
21892	Paddle-wheel.....	Richard B. Locke .....	Stapleton, N. Y. ....	Oct. 26, 1858.
21432	Paddle-wheel propellers .....	John May.....	Columbus, Ga. ....	Sept. 7, 1858.
20606	Propeller.....	C. F. Gardiner, assignor to himself and H. D. Gardiner.	East Boston, Mass. ....	June 15, 1858.
20744	Propeller.....	William Thurber.....	Olean, N. Y. ....	June 29, 1858.
20953	Propeller.....	D. E. Merick .....	Cleveland, Ohio .....	July 20, 1858.
22016	Propeller.....	George R. Comstock.....	Little Falls, N. Y. ....	Nov. 9, 1858.
22209	Propeller.....	Washington Van Dusen.....	Philadelphia, Penn. ....	Nov. 30, 1858.
20889	Propeller, boat.....	Mortimer Nelson.....	New York, N. Y. ....	July 13, 1858.
22373	Propeller, buoyant .....	James Montgomery .....	New York, N. Y. ....	Dec. 21, 1858.
21378	Propeller for boats .....	Le Grand C. St. John.....	Buffalo, N. Y. ....	Aug. 31, 1858.



*List of patents for inventions, 1858—CLASS VII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22422	Propeller for boats .....	James Hamilton .....	New York, N. Y. ....	Dec. 28, 1858.
20862	Propeller for canal boats .....	Abner Burbank .....	Buffalo, N. Y. ....	July 13, 1858.
22345	Propeller for life-boats .....	Mortimer M. Camp .....	New Haven, Conn. ....	Dec. 21, 1858.
21825	Propeller, marine .....	John Eaton .....	Belleville, Canada .....	Oct. 19, 1858.
21650	Propeller, screw .....	Oliver Byrne and I. G. Elliott .....	New York, N. Y. ....	Oct. 5, 1858.
22417	Propeller, steering .....	H. E. Fessel .....	Chicago, Ill. ....	Dec. 28, 1858.
20332	Propeller, valve .....	Aaron Colton .....	Le Roy, N. Y. ....	May 25, 1858.
20751	Propellers, attaching and housing .....	William Webster .....	Jefferson county, W. T. ....	June 29, 1858.
19887	Propellers, coupling of shafting for .....	S. Wilmarth .....	Charlestown, Mass. ....	April 6, 1858.
		S. L. Hay and .....	Reading, Mass. ....	
		D. N. B. Coffin, jr .....	Boston, Mass. ....	
22266	Propellers, means for securing the arms to the hubs of .....	Horatio O. Perry, assignor to himself and Sydney Sheppard .....	Buffalo, N. Y. ....	Dec. 7, 1858.
22431	Propelling and steering apparatus .....	Samuel Huse and Samuel Huse, jr .....	Chicago, Ill. ....	Dec. 28, 1858.
19851	Row-lock .....	James H. Hills .....	Burlington, Vt. ....	April 6, 1858.
19084	Safe, marine .....	Josiah Foster .....	Sandwich, Mass. ....	Jan. 12, 1858.
19067	Sails, reefing .....	Joseph F. Boyd .....	Charlestown, Mass. ....	Jan. 12, 1858.
19850	Sails, reefing .....	L. Higgins and .....	Jersey City, N. J. ....	April 6, 1858.
		A. Brown .....	New York, N. Y. ....	
19225	Sails, top, reefing .....	Donald McLean, assignor to himself, Sam'l Green, and Nathan Ames .....	Boston, Mass. ....	Jan. 26, 1858.
22097	Ship building .....	Daniel Vrooman .....	Hudson, Ohio .....	Nov. 16, 1858.
20657	Ships and other vessels, air-cells for giving buoyancy to .....	Samuel Nowlan .....	New York, N. Y. ....	June 22, 1858.
21609	Ships, balance-sail rig for .....	John Lewis .....	Elizabeth City, N. J. ....	Sept. 28, 1858; Eng-land, Sept. 4, 1855.
19737	Ship's bulkhead .....	C. Maliphant, assignor to Thomas West .....	New York, N. Y. ....	Mar. 23, 1858.
20131	Ship's capstan .....	James R. Taylor, assignor to Wm. Skiddy .....	New York, N. Y. ....	April 27, 1858.
19043	Ships, construction of .....	John Reeves .....	Brooklyn, N. Y. ....	Jan. 5, 1858.
20233	Ship's lower sails in courses, working .....	Samuel Verry, jr .....	Salem, Mass. ....	May 11, 1858.
20877	Ships, method of coppering the interior of, to protect them from lightning .....	R. W. Haskins .....	Buffalo, N. Y. ....	July 13, 1858.

21134	Ship's windlass .....	Peter H. Jackson.....	New York, N. Y.....	Aug. 10, 1858.
19332	Signal lantern .....	Daniel Ammen .....	U. S Navy.....	Feb. 16, 1858.
20321	Sounding apparatus.....	Richard F. Bridwell .....	St. Louis, Mo.....	May 25, 1858.
21919	Steamers, ocean, construction of .....	Ross & Thomas Winans.....	Baltimore, Md.....	Oct. 26, 1858.
19139	Steamers, ships, &c., table-rack for .....	John Franz.....	Boston, Mass.....	Jan. 19, 1858.
19813	Steering-apparatus .....	Isaac Moore, assignor to himself & Francis N. Gove.	Brooklyn, N. Y .....	Mar. 30, 1858.
20239	Steering-apparatus .....	S. B. Cram and C. Weed, assignors to S. B. Cram.	Boston, Mass .....	May 11, 1858.
21210	Steering-apparatus .....	Franklin A. Morley.....	Sodus Point, N. Y .....	Aug. 17, 1858.
22453	Steering-apparatus .....	Jesse Reed .....	Marshfield, Mass .....	Dec. 28, 1858.
21852	Sub-marine explorer.....	Van Buren Reyerson .....	New York, N. Y.....	Oct. 19, 1858.
21906	Tiller-rope protector.....	John Sample .....	Meadville, Miss .....	Oct. 26, 1858.
22088	Vessels, centre-board for. ....	Jesse F. Potts .....	Apalachicola, Fla.....	Nov. 16, 1858.
21917	Vessels, hulls of steam .....	Ross & Thomas Winans.....	Baltimore, Md.....	Oct. 26, 1858.
20673	Vessels, masting and rigging.....	William Webster .....	Jefferson county, W. T .....	June 22, 1858.
19841	Vessels, means for protecting tiller-ropes of, from fire.	W. Y. Gill.....	Henderson, Ky.....	April 6, 1858.
21534	Vessels, mode of launching .....	Gurdon Conkling, assign'r to W. T. Conkling	Conklingville, N. Y.....	Sept. 14, 1858.
20426	Vessels, navigable, buoyant life-preserving state-rooms for.	Henry Hallock .....	Brookhaven, N. Y.....	June 1, 1858.
19996	Vessels, navigable, centre-boards of.....	Benjamin Joline .....	Westfield, N. Y.....	April 20, 1858.
22002	Vessels, rudder for.....	Silas Yerkes, jr., assignor to himself and George Yerkes.	Philadelphia, Pa. ....	Nov. 2, 1858.
19047	Vessels, sea-going steam, lightening .....	John C. F. Salomon and George W. Morris.	Baltimore, Md.....	Jan. 5, 1858.
21918	Vessels, steam .....	Ross and Thomas Winans.....	Baltimore, Md. ....	Oct. 26, 1858.
21920	Vessels, steam, connexion of steam-engines with propellers of.	Ross and Thomas Winans.....	Baltimore, Md. ....	Oct. 26, 1858.
20578	Vessels, steam, smoke-stack for. (See Class V, letter S.)	Milo Osborn .....	Osbornville, Ohio.....	June 15, 1858.
21532	Vessels, sunken, apparatus for raising.....	Aldridge Winham .....	New York, N. Y.....	Sept. 14, 1858.
19500	Vessels, sunken, method of raising .....	F. G. Ford and .....	New York, N. Y.....	Mar. 2, 1858.
20287	Vessels, worming, parcelling and serving the rigging of, machine for.	P. Plant.....	Washington, D. C .....	May 18, 1858.
22457	Water, apparatus for walking on the.....	Patrick McLaughlin.....	Camden, Me.....	
		Henry R. Rowlands .....	Boston, Mass .....	Dec. 28, 1858.



List of patentees for inventions, 1858—CLASS VII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19787	Windlass.....	Joseph P. Manton.....	Providence, R. I.....	Mar. 30, 1858.
20427	Windlass.....	D. D. Hammond.....	Duxbury, Mass.....	June 1, 1858.
20555	Windlass.....	John Harvey.....	Carmel, Me.....	June 15, 1858.
21280	Windlass.....	Samuel N. Smith.....	New York, N. Y.....	Aug. 24, 1858.

CLASS VIII.—MATHEMATICAL, PHILOSOPHICAL, AND OPTICAL INSTRUMENTS, including clocks, chronometers, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21621	Adding numbers, machine for.....	John B. Newbrough.....	St. Louis, Mo.....	Sept. 28, 1858.
21236	Addometer.....	Leonard N. Nutz, assignor to Irwin B. Randle and Elias Hibbard.	Alton, Ill.....	Aug. 17, 1858.
21243	Addometer.....	Jabez Burns.....	New York, N. Y.....	Aug. 24, 1858.
21506	Altitude, sun's, heliographic instrument for taking the.....	John Oakes.....	New York, N. Y.....	June 8, 1858.
22396	Altitudes, &c., instrument for measuring.....	George C. Ayling, assignor to himself and H. A. Ayling.	Boston, Mass.....	Dec. 21, 1858; ante-dated Aug. 17, 1858.
21921	Arithmetical proof rule.....	Samuel S. Young.....	Eaton, Ohio.....	Oct. 26, 1858.
21941	Arithmometer for addition.....	O. L. Castle.....	Upper Alton, Ill.....	Nov. 2, 1858.
22075	Astronomical instrument.....	Henry Glover.....	New York, N. Y.....	Nov. 16, 1858.
22125	Attraction of the needle, local, method of neutralizing.....	Calvin Kline.....	Brooklyn, N. Y.....	Nov. 23, 1858.
21435	Callipers and dividers.....	Joseph D. Moon.....	Chelsea, Mass.....	Sept. 7, 1858.
21865	Chronometric escapement.....	Thomas Morison, assignor to A. S. Solomons.	New York, N. Y.....	Oct. 19, 1858.
	Clock, burglar's alarm. (See Class XXII, letter A.)			

19519	Clock, calendar.....	Holly Skinner .....	Huron, Ohio.....	Mar. 2, 1858.
19472	Clock-movements, lathe for cutting tenons for.	Russell Peck, assignor to himself and G. H. Wooster.	Bristol, Conn .....	Feb. 23, 1858.
19351	Clock, public .....	A. D. Crane.....	Boston, Mass.....	Feb. 16, 1858.
22413	Clocks, compensating pendulum for.....	Wright L. Coffinberry .....	Grand Rapids, Mich .....	Dec. 28, 1858.
20786	Clocks, registering attachment for .....	Stanislaus Fournier .....	New Orleans, La. ....	July 6, 1858.
22388	Dynamometer .....	William Tucker .....	Blackstone, Mass. ....	Dec. 21, 1858.
19058	Dividers, mathematical.....	John E. Earle, assignor to himself and Samuel Shepherd.	Leicester, Mass.....	Jan. 5, 1858.
19589	Dividers, mathematical .....	Anton Schaeffer .....	New York, N. Y. ....	Mar. 9, 1858.
21041	Drawing-instrument .....	W. W. Withes .....	Philadelphia, Pa.....	July 27, 1858.
19642	Electric currents, apparatus for regulating and measuring the intensity of.	Joseph Lacassagne and Rudolphe Thiers. ...	Lyons, France.....	Mar. 16, 1858.
19766	Electricity, issue of gas from burners, device for regulating by. (See Class V, letter B.)	Samuel Gardiner, jr. ....	New York, N. Y. ....	Mar. 30, 1858.
21781	Electricity, method of lighting gas by.....	C. W. Smith .....	Evans, N. Y.....	Oct. 12, 1858.
19460	Electro-galvanic batteries, method of lighting gas by.	Archelaus Wilson.....	Boston, Mass.....	Feb. 23, 1858.
19176	Electro-galvanic batteries, method of registering the speed back and forward, and distances passed over by railroad trains by means of.	Lewis Troost, assignor to John A. M. Battle.	Mobile, Ala.....	Jan. 19, 1858. Eng-land, June 15, 1857; France, June 18, 1857.
19132	Electro-magnetic batteries to car-brakes, application of.	S. D. Carpenter.....	Madison, Wis.....	Jan. 19, 1858.
21105	Electo-magnetic engine .....	Frederick Yeiser.....	Lexington, Ky.....	Aug. 3, 1858.
22071	Electro-magnetic fire-alarm apparatus.....	Moses G. Farmer.....	Salem, Mass .....	Nov. 16, 1858.
20970	Electro-magnetic house-alarm .....	William Whiting .....	Roxbury, Mass.....	July 20, 1858.
19042	Electro-magnetic speed-governor.....	George M. Phelps.....	Troy, N. Y .....	Jan. 5, 1858.
22347	Ellipsograph.....	E. G. Chormann.....	Philadelphia, Penn .....	Dec. 21, 1858.
19759	Galvanic batteries, device for preventing corrosion of the binding screws in.	George Doyle.....	Ottawa, Ill.....	Mar. 30, 1858.
19245	Galvanic batteries, method of attaching the electrodes to the poles of.	Joseph Elmendorf.....	Penn Yan, N. Y.....	Feb. 2, 1858.
19209	Galvanic battery .....	Ebenezer Seaver .....	Boston, Mass.....	Jan. 26, 1858.
22029	Galvano-electric machine .....	Joseph R. Palmenberg.....	New York, N. Y.....	Nov. 9, 1858.
19392	Gravimotometer .....	J. W. Wetmore.....	Erie, Penn.....	Feb. 16, 1858.
20326	Hygrometers, device for actuating the index in.	C. L. Clark.....	Rochester, N. Y.....	May 25, 1858.
22378	Levelling instrument, self-adjustable.....	Joseph Redhead .....	Woodville, Miss.....	Dec. 21, 1858.



List of patents for inventions, 1858—CLASS VIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19819	Lightning-conductors.....	Oren White, assignor to Henry C. Janes...	Racine, Wis.....	Mar. 30, 1858.
20916	Lightning-rods, device for securing.....	Victor Schrage.....	Cincinnati, Ohio.....	July 13, 1858.
21905	Lightning-rods, method of insulating and supporting.	E. C. Rogers.....	Boston, Mass.....	Oct. 26, 1858.
22188	Lightning-rods, supporting insulator for.....	N. N. McLeod.....	St. Louis, Mo.....	Nov. 30, 1858.
19379	Magnets, receiving.....	Nathaniel Parks.....	Rome, N. Y.....	Feb. 16, 1858.
22411	Measure, grain.....	Job Brown.....	Lawn Ridge, Ill.....	Dec. 28, 1858.
20186	Measurer, grain, self-regulating.....	George W. Atkins.....	Milton, Del.....	May 11, 1858.
22241	Measuring and recording by the tape, method of.	E. A. Preston.....	Battle Creek, Mich.....	Dec. 7, 1858.
19031	Measuring the superficies of boards, machine for.	Seneca C. Kennard.....	South Newmarket, N. H.....	Jan. 5, 1858.
19153	Pendulum, compound.....	Charles W. Rice and John E. Harrington.....	Worcester, Mass.....	Jan. 19, 1858.
19479	Pendulum, compound.....	Dana Bickford.....	Millbury, Mass.....	Mar. 2, 1858.
19798	Pendulum power, applying.....	Andrew Slevin.....	Ann Arbor, Mich.....	Mar. 30, 1858.
19091	Plotting instrument.....	Charles R. Iliff.....	Falmouth, Ky.....	Jan. 12, 1858.
19817	Plumb and level indicator, attaching the plumb line to a.	John L. Rowe, assignor to Frederick Stevens	New York, N. Y.....	Mar. 30, 1858.
20356	Protractors.....	Josiah Lyman.....	Lenox, Mass.....	May 25, 1858.
19062	Quadrants, artificial horizon for, method of determining the.	James C. Lane, assignor to himself and T. H. Barnes.	Brooklyn, N. Y.....	Jan. 5, 1858.
22081	Registering speed of railroad trains, method of.	Charles T. Liernur.....	Mobile, Ala.....	Nov. 16, 1858.
21101	Registering the motion of machinery, method of.	S. L. Wiegand.....	Philadelphia, Pa.....	Aug. 3, 1858.
19105	Rule, carpenter's.....	L. C. Stephens.....	Pine Meadow, Conn.....	Jan. 12, 1858.
20943	Rule, carpenter's.....	William O. C. Fritschler.....	Brooklyn, N. Y.....	July 20, 1858.
21784	Rule for describing polygonal forms.....	Meriwether Jeff. Thompson.....	St. Joseph, Mo.....	Oct. 12, 1858.
20431	Signal-lantern.....	William Howard.....	Flushing, N. Y.....	June 1, 1858.
20706	Signal-lights, electric.....	S. Gardiner, jr., and L. Blossom.....	New York, N. Y.....	June 29, 1858.
21656	Signalizer, railway bridge. (See Class IX, letter R.)	Jacob D. Custer.....	Norristown, Pa.....	Oct. 5, 1858.
	Signals, locomotive. (See Class VI, letter L.)			

21638	Signals on railroads, mode of transmitting magnetic.	Henry Maule -----	Philadelphia, Pa.-----	Oct. 5, 1858.
20402	Signals, semaphoric, mechanism for operating	William Boyd-----	Washington, D. C.-----	June 1, 1858.
20946	Spectacle-frames, joint for ----- Speed-indicator and recorder for railroad cars. (See Class X, letter C.)	G. N. Cummings -----	Hartford, Conn.-----	April 27, 1858.
21982	Surveying instruments, method of adjusting the plummet without moving the tripod in.	Charles A. Saxe -----	Philadelphia, Pa.-----	Nov. 2, 1858.
20908	Surveyor's graphodometer, automatic mechanism for operating the.	J. M. Wampler -----	Baltimore, Md.-----	July 13, 1858.
19357	Surveyor's protractor-----	John A. Fian -----	Simpson county, Ky.-----	Feb. 16, 1858.
20915	Surveyor's tripod, head for-----	W. J. Young-----	Philadelphia, Pa.-----	July 13, 1858.
19027	Telegram keys, method of operating-----	John J. Hayden-----	Rising Sun, Ind.-----	Jan. 5, 1858.
19278	Telegraph cable, apparatus for paying out-----	Louis Brauer, assignor to himself, Louis G. Bandebury and Joseph B. Stewart.	Washington, D. C.-----	Feb. 2, 1858.
21371	Telegraph cable, apparatus for paying out-----	George Scott-----	Wiscasset, Me.-----	Aug. 31, 1858.
21634	Telegraph cable, method of laying submarine--	Owen G. Warren -----	New York, N. Y.-----	Sept. 28, 1858.
21629	Telegraph cable, method of laying submarine--	Samuel Samuels-----	Brooklyn, N. Y.-----	Sept. 28, 1858.
21492	Telegraph insulators ----- }	Moses G. Farmer and John M. Batchelder	Salem, Mass.----- }	Sept. 14, 1858.
20698	Telegraph, pantographic-----	Giovanli Caselli -----	Cambridge, Mass.----- }	June 29, 1858.
21329	Telegraph wire, method of sending and receiving messages simultaneously over the same. Telegraph wires, composition for coating (See Class IV, letter C.)	Moses G. Farmer-----	Florence, Italy -----	Aug. 31, 1858.
19116	Telegraphic cables, construction of-----	John Absterdam -----	Boston, Mass.-----	Jan. 19, 1858.
22082	Telegraphic instruments -----	R. Kendrick and A. W. Akerson-----	Cambridgeport, Mass.-----	Nov. 16, 1858.
21132	Telegraphic instruments -----	George B. Hicks -----	Cleveland, Ohio -----	Aug. 10, 1858.
20982	Telegraphic machine, self-adjusting and embossing.	E. F. Barnes -----	Brooklyn, N. Y.-----	July 27, 1858.
21024	Telegraphic machines, printing, mode of operating the mechanism of.	T. and J. Reeve and S. M. Tyler. -----	Brooklyn, N. Y.-----	July 27, 1858.
20930	Telegraphing magnets easy of adjustment, combination of electro and permanent magnets to render.	E. F. Barnes-----	Brooklyn, N. Y.-----	July 20, 1858.
20348	Thermostat-----	Simeon Holton, jr-----	Middlebury, Vt.-----	May 25, 1858.
21020	Time, combination of the needle and sundial to ascertain.	C. R. M. Pohlé. -----	Richmond, Va. -----	July 27, 1858.
20201	Time-keeper -----	Henry C. Fay -----	Troy, N. Y.-----	May 11, 1858.



*List of patents for inventions, 1858—CLASS VIII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20252	Time-keeper, escapement for.....	Samuel Carpenter .....	Flushing, N. Y. ....	May 18, 1858.
21146	Time-keeper, escapement for.....	Eugene Paulus. ....	Philadelphia, Penn.....	Aug. 10, 1858.
21738	Time-keeper, escapement for.....	Josiah Bishop.....	Austin, Texas.....	Oct. 12, 1858.
21425	Time-keeper, escapement of. ....	Joseph Jewnet.....	Meadville, Penn.....	Sept. 7, 1858.
22428	Time-keepers, method of adjusting the tripper to escapement-lever of.	Edwin B. Horn .....	Boston, Mass.....	Dec. 28, 1858.
22110	Time-keepers, method of regulating the winding of.	Jonathan Dillon.....	Washington, D. C.....	Nov. 23, 1858.
19744	Time-keepers, regulators for.....	Dara Bickford .....	Westerly, R. I. ....	Mar. 30, 1858.
22305	Time-pieces, escapement for.....	George P. Reed.....	Roxbury, Mass.....	Dec. 14, 1858.
21895	Transit instrument.....	R. C. Matthewson.....	San Francisco, Cal.....	Oct. 26, 1858.
19966	Watch-cases .....	Elihu Bliss, assignor to Baldwin & Co.....	Newark, N. J.....	April 13, 1858; reissued Nov. 23, 1858.
19972	Watch-cases .....	John F. Watson, assignor through mesne assignments to Baldwin & Co.....	Middlesex Co., England. }	April 13, 1858; England, June 16, 1857; reiss'd July 27, 1858.
20554	Watch-cases .....	J. M. Durand.....	Newark, N. J.....	June 15, 1858.
22254	Watch-cases .....	Auguste Lachat.....	Newark, N. J.....	Dec. 7, 1858.
20942	Watch-cases, making .....	Edwin Field.....	New York, N. Y. ....	July 20, 1858.
22397	Watch-faces .....	Samuel Baldwin, assignor to Baldwin & Co.	Providence, R. I.....	Dec. 21, 1858.
20491	Watch, stop.....	Charles E. Jacot .....	Newark, N. J.....	Dec. 21, 1858.
20403	Watches, attachment for, to ascertain the time without looking at the watch.	M. W. Baldwin.....	New York, N. Y. ....	June 8, 1858.
20888	Watches, escapement of.....	Jacob Muma.....	Philadelphia, Penn. ....	June 1, 1858.
22174	Watches, device to prevent injury from rupture of the main-spring of.	David B. Fitts.....	Hanover, Penn.....	July 13, 1858.
			Holliston, Mass.....	Nov. 30, 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22472	Beams, connecting rigidly the ends of. (See Class II, letter M.)	Samuel Eakins, assignor to himself and M S. Wickersham.	Philadelphia, Penn.....	Dec. 28, 1858.
19170	Blasting or removing submarine bodies, method of.	Asahel G. Batchelder, assignor to Hiram E Pearson and Alden B. Butterfield.	Lowell, Mass.....	Jan. 19, 1858.
21292	Blind fixtures, window .....	James Wyman.....	Schaghticoke, N. Y. ....	Aug. 24, 1858.
19795	Blind slats, machine for setting the staples in...	John C. Fr. Salomon.....	Baltimore, Md.....	Mar. 30, 1858.
20396	Brake, railroad.....	Joseph Harris .....	Allegheny, Penn.....	May 25, 1858.
22280	Brake, railroad.....	William Edge .....	Downingtown, Penn .....	Dec. 14, 1858.
21120	Brakes to hand trucks, applying.....	C. L. Daboll .....	New London, Conn.....	Aug. 10, 1858.
20105	Breakwaters, &c., frames or caissons of .....	Edward H. Tracy .....	New York, N. Y.....	April 27, 1858.
20414	Bridge.....	Thomas Durden .....	Montgomery, Ala.....	June 1, 1858.
21203	Bridge.....	Stephen H. Long, U. S. A.....	Louisville, Ky.....	Aug. 17, 1858.
21388	Bridge.....	L. E. Truesdell.....	Warren, Mass.....	Aug. 31, 1858.
22106	Bridge, truss.....	John C. Briggs.....	Concord, N. H.....	Nov. 23, 1858.
20987	Bridge, truss, bearing blocks of.....	Albert D. Briggs .....	Springfield, Mass.....	July 27, 1858.
20082	Bridge, truss, metallic shoe for.....	D. H. Morrison.....	Dayton, Ohio.....	April 27, 1858.
19573	Bridges, &c., constructing framing of.....	William McKibbin.....	San Francisco, Cal.....	Mar. 9, 1858.
20204	Canals, &c., stop-gate for .....	Joseph W. Sprague.....	Rochester, N. Y.....	Nov. 30, 1858.
19682	Ceiling, fire-proof.....	John B. Cornell.....	New York, N. Y.....	Mar. 23, 1858.
19375	Closet, fire-proof.....	Francis McGhan.....	Washington, D. C.....	Feb. 16, 1858.
20142	Closet, water.....	William S. Carr.....	New York, N. Y.....	May 4, 1858.
21294	Closet, water.....	Isaac Edelman, assignor to G. W. Edelman, jr.	Philadelphia, Penn.....	Aug. 24, 1858.
21407	Closet, water.....	George Blanchard.....	New York, N. Y.....	Sept. 7, 1858.
21734	Closet, water.....	Frederick H. Bartholomew.....	New York, N. Y.....	Oct. 12, 1858.
19030	Conduits, grab for clearing.....	James Ingram.....	New York, N. Y.....	Jan. 5, 1858.
19646	Door-register.....	John G. Miller.....	Swanton, Md.....	Mar. 16, 1858.
21754	Door, self-closing.....	John C. Harkness.....	Washington, D. C.....	Oct. 12, 1858.
19673	Door-sill, self-adjusting.....	George C. Bigelow.....	Worcester, Mass.....	Mar. 23, 1858.
19217	Doors, weather-strip for.....	Joseph Tinney.....	Westfield, N. Y.....	Jan. 6, 1858.



*List of patents for inventions, 1858—CLASS IX.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20590	Doors, weather-strip for.....	M. M. Shellabarger.....	Joliet, Ill.....	June 15, 1858.
22052	Dredging-crane.....	George Wood and John King, assignors to themselves and William Lawrence.	Philadelphia, Penn.....	Nov. 9, 1858.
19908	Dredging-machine.....	E. B. Bishop.....	Shreveport, La.....	April 13, 1858.
21613	Dredging-machine.....	Abel Minard.....	New York, N. Y.....	Sept. 28, 1858.
22458	Dredging-machine.....	James Stewart.....	New London, Conn.....	Dec. 28, 1858.
21140	Drill, rock.....	William Lewis.....	Harrisburg, Penn.....	Aug. 10, 1858.
21205	Drill, rock.....	W. H. Loomis and John Hewitt.....	St. Louis, Mo.....	Aug. 17, 1858.
22046	Drill, rock.....	L. White and J. T. Bumgarner.....	Davenport, Iowa.....	Nov. 9, 1858.
20563	Driver, post and pile.....	Oliver Hyde.....	Benicia, Cal.....	June 15, 1858.
22317	Dry docks and marine railways, adjustable cradle for.	Washington Van Dusen.....	Philadelphia, Penn.....	Dec. 14, 1858.
20912	Dumping coal-bucket, self.....	John Wüst.....	Philadelphia, Penn.....	July 13, 1858.
20155	Eave-troughs, braces of.....	W. H. Henderson.....	Franklin, Ia.....	May 4, 1858.
20511	Excavating-machine.....	Nathan Saunders and F. T. Sherman.....	Chicago, Ill.....	June 8, 1858.
21206	Excavating-machine.....	William R. Maffet.....	Wilkesbarre, Penn.....	Aug. 17, 1858.
19565	Excavating post-holes, machine for.....	William K. Johnston.....	Rock Island, Ill.....	Mar. 9, 1858.
19104	Excavator.....	J. D. Smith.....	Panton, Vt.....	Jan. 12, 1858.
22279	Excavator.....	S. S. Curtis.....	Croton Corners, N. Y.....	Dec. 14, 1858.
19353	Fence, field.....	John Drown.....	Huron, N. Y.....	Feb. 16, 1858.
19491	Fence, field.....	Peter S. Carhart.....	Collamer, N. Y.....	Mar. 2, 1858.
19566	Fence, field.....	Jones H. Jones and Newton W. Smith.....	Lebanon, Ohio.....	Mar. 9, 1858.
19873	Fence, field.....	Benning Rowells.....	Ossian, N. Y.....	April 6, 1858.
19990	Fence, field.....	Benedict Gabriel.....	Elmira, N. Y.....	April 20, 1858.
20071	Fence, field.....	E. E. Lewis.....	Geneva, N. Y.....	April 27, 1858.
20599	Fence, field.....	H. S. Wentworth.....	Norvell, Mich.....	June 15, 1858.
20560	Fence, field.....	Thomas Hoge.....	Waynesburgh, Penn.....	June 15, 1858.
21074	Fence, field.....	Cornelius Horton.....	Phelps, N. Y.....	Aug. 3, 1858.
21073	Fence, field.....	D. M. Heikes.....	Franklin Township, Penn.....	Aug. 3, 1858.
21843	Fence, field.....	John B. Mitchell.....	Wayne, N. Y.....	Oct. 19, 1858.
22202	Fence, field, brace-post for.....	Cornelius Quackenbush.....	Huron, N. Y.....	Nov. 30, 1858.
20005	Fence, field, portable.....	L. S. Robison.....	Gypsum, N. Y.....	April 20, 1858.

19724	Fence, field, post for.....	H. G. Seekins.....	Elyria, Ohio.....	Mar. 23, 1858.
20400	Fence, lattice, iron.....	Albert Betteley.....	Boston, Mass.....	June 1, 1858.
21064	Fence, metallic.....	William Bush.....	Harrisburg, Pa.....	Aug. 3, 1858.
21315	Fence, portable.....	Robert J. Brown.....	Perry, Pa.....	Aug. 31, 1858.
21260	Fence, portable field.....	John B. Johnson.....	Linden, Ind.....	Aug. 24, 1858.
21529	Fence, portable field.....	A. B. and M. Vandemark.....	Phelps, N. Y.....	Sept. 14, 1858.
21549	Fence, portable field.....	Peter S. Carhart.....	Collamer, N. Y.....	Sept. 21, 1858.
19863	Fence-post.....	Rensselaer Merrill.....	Elmira, N. Y.....	April 6, 1858.
19434	Fences, field, device for connecting the panels of.....	Rensselaer Merrill.....	Elmira, N. Y.....	Feb. 23, 1858.
19159	Fences, field, method of connecting the panels of.....	William D. Sheldon.....	Huron, N. Y.....	Jan. 19, 1858.
21037	Fences, field, triangular brace for locking the panels of.....	Charles Van De Mark.....	Oak's Corner, N. Y.....	July 27, 1858.
21459	Fences, wire, method of allowing for expansion and contraction of.....	Olly Williams.....	St. Louis, Mo.....	Sept. 7, 1858.
19174	Floors, marquetry, construction of.....	Benjamin H. Shadaker, assignor to Edwin Bender.....	Philadelphia, Pa.....	Jan. 19, 1858.
21526	Gate.....	William Tobey.....	Naples, N. Y.....	Sept. 14, 1858.
21645	Gate.....	Silas Allington.....	West Dresden, N. Y.....	Oct. 5, 1858.
19499	Gate, farm.....	Andrew Dietz.....	Raritan, N. J.....	March 2, 1858.
21785	Gate, farm.....	Joseph A. Treat.....	Tallmadge, Ohio.....	Oct. 12, 1858.
22131	Gate, farm.....	William Newlove.....	Penn Yan, N. Y.....	Nov. 23, 1858.
20008	Gate, farm, catch-latch for.....	Joseph Summers.....	Raleigh, Va.....	April 20, 1858.
20247	Gate, farm, method of opening and closing.....	William F. C. Beattie.....	Cornwall, N. Y.....	May 18, 1858.
22023	Gate, farm, method of opening and closing.....	William G. Hermance.....	Geneva, N. Y.....	Nov. 9, 1858.
21851	Gate, farm, method of opening and closing by approaching vehicles.....	E. C. Rowland.....	Phelps, N. Y.....	Oct. 19, 1858.
21811	Gate, farm, mode of opening and closing.....	W. T. Boggs.....	Cincinnati, Ohio.....	Oct. 19, 1858.
22261	Gate, farm, mode of opening and closing by approaching vehicles.....	Caleb Winegar.....	Union Springs, N. Y.....	Dec. 7, 1858.
19630	Girder, wrought iron.....	Thomas G. Gaylord.....	Cincinnati, Ohio.....	Mar. 16, 1858.
20011	Girders, truss, metallic shoes for the braces of	T. B. White.....	New Brighton, Pa.....	April 20, 1858.
22047	Grubbing-machine.....	Timothy C. Wood.....	Charleston, Mich.....	Nov. 9, 1858.
21431	Hoisting and dumping apparatus.....	George Martz.....	Pottsville, Pa.....	Sept. 7, 1858.
19237	Journals of axles on railways, reducing the friction of.....	L. J. P. De Mirimonde.....	Paris, France.....	Feb. 2, 1858. France,
20629	Lath, metallic.....	John B. Cornell.....	New York, N. Y.....	Aug. 23, 1856. Reis- sued Nov. 23, 1858. June 22, 1858.



*List of patents for inventions, 1858—CLASS IX.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21118	Lath surface, metallic .....	John B. Cornell.....	New York, N. Y.....	Aug. 10, 1858.
19487	Lathing, continuous metallic.....	Birdsell Cornell.....	New York, N. Y.....	Mar. 2, 1858.
21386	Logs, rolling and piling, implement for.....	William Todd.....	Cherryfield, Me.....	Aug. 31, 1858.
21908	Mining coal, machine for.....	Elisha Sinkins.....	Allegheny, Pa.....	Oct. 26, 1858.
19543	Mining coal, &c., machine for.....	C. A. Chamberlin.....	Allegheny, Pa.....	Mar. 9, 1858.
19592	Pavement, iron.....	Abijah Tewkesbury.....	East Boston, Mass.....	Mar. 9, 1858.
22444	Pavement, iron.....	Richard Montgomery.....	New York, N. Y.....	Dec. 28, 1858.
21834	Pavement, metallic side, construction of.....	Peter H. Jackson.....	New York, N. Y.....	Oct. 19, 1858.
20883	Pile-driver, adjustable.....	T. W. Loveless.....	Corning, N. Y.....	July 13, 1858.
21491	Plough, mole.....	Adam Defenbaugh.....	Walnut Run, Ohio.....	Sept. 14, 1858.
22194	Plough, underdrain.....	James and Edward Nevison.....	Morgan, Ohio.....	Ncv. 30, 1858.
20352	Post, iron gate or fence.....	T. E. and A. and E. King.....	Cherry Valley, Ohio.....	May 25, 1858.
21750	Railing, iron, construction of.....	William S. Fuller.....	Milbury, Mass.....	Oct. 12, 1858.
22448	Railing, iron, construction of.....	James Nuttall.....	New Orleans, La.....	Dec. 28, 1858.
20797	Railing, iron, method of constructing.....	Luther Homes.....	New Orleans, La.....	July 6, 1858.
20419	Railroad axle, compound.....	Heman Gardiner.....	New York, N. Y.....	June 1, 1858.
21604	Railroad axle, compound.....	I. P. Garrett and Daniel Steckel.....	Mercer County, Pa.....	Sept. 28, 1858.
20871	Railroad car-box cases and pedestals.....	Jacob C. Geisendorff.....	Cincinnati, Ohio.....	July 13, 1858.
19705	Railroad car-coupling.....	Henry E. Loane.....	Baltimore, Md.....	Mar. 23, 1858.
20777	Railroad car seats and berths.....	Zenas Cobb.....	Chicago, Ill.....	July 6, 1858.
19124	Railroad chair.....	James Bishop.....	Owego, N. Y.....	Jan. 19, 1858.
20472	Railroad chair.....	Theodore Krausch.....	Susquehanna Depot, Pa....	June 1, 1858.
20464	Railroad chair.....	E. Barnes, assignor to E. Crane.....	Dorchester, Mass.....	June 1, 1858.
20617	Railroad chair.....	E. R. Barnes.....	Brookfield, Ct.....	June 22, 1858.
21471	Railroad chair.....	Adam Hay, assignor to himself and S. W. and L. B. Miller.....	Newark, N. J.....	Sept. 7, 1858.
21956	Railroad chair.....	Pliny F. Hall.....	Troy, N. Y.....	Nov. 2, 1858.
21986	Railroad chair.....	James H. Simmons.....	Painted Post, N. Y.....	Nov. 2, 1858.
19306	Railroad chair, manufacture of wrought iron...	James Milliken.....	Philadelphia, Pa.....	Feb. 9, 1858.
20057	Railroad couplings, buffer-heads for.....	M. C. Gardner.....	Rochester, N. Y.....	April 27, 1858.
20040	Railroad crossings, frogs for.....	Eli T. Conner.....	East Mauch Chunk, Pa....	April 27, 1858.
21942	Railroad ditching machine.....	Wm. Chadwick & S. I. B. Anderson.....	Terre Haute, Ind.....	Nov. 2, 1858.

21067	Railroad-frog .....	James M. Dick .....	Buffalo, N. Y. ....	Aug. 3, 1858.
21426	Railroad-indicator .....	Gardner R. Lillibridge .....	Wayne county, Mich. ....	Sept. 7, 1858.
19675	Railroad-rail .....	Leverett Ball .....	Auburn, N. Y. ....	Mar. 23, 1858.
20007	Railroad-rail .....	E. W. Stephens & R. Jenkins .....	Covington, Ky. ....	April 20, 1858.
21097	Railroad-rail .....	M. J. Waldron .....	Dunkirk, N. Y. ....	Aug. 3, 1858.
21241	Railroad-rail .....	S. A. Beers .....	Brooklyn, N. Y. ....	Aug. 24, 1858.
22376	Railroad-rail .....	Augustus Plinta .....	Albany, N. Y. ....	Dec. 21, 1858.
20928	Railroad-rails, connecting the ends of .....	K. H. Allen .....	Worcester, Mass. ....	July 20, 1858.
19555	Railroad-rails, splice for joints of .....	M. Fisher .....	Trenton, N. J. ....	Mar. 9, 1858.
21014	Railroad-rails, splice pieces for .....	Edward Morris .....	Philadelphia, Penn. ....	July 27, 1858.
19361	Railroad snow-plough .....	H. T. Hartman .....	Lexington, Va. ....	Feb. 16, 1858.
19339	Railroad snow-plough .....	J. K. Babcock .....	Honeoye Falls, N. Y. ....	Feb. 16, 1858.
19847	Railroad station indicator .....	John M. Harvey and .....	Amsterdam, N. Y. ....	April 6, 1858.
19880	Railroad station indicator .....	N. J. Becker .....	Florida, N. Y. ....	April 6, 1858.
19304	Railroad station pumps, mode of operating .....	Charles J. Smith .....	North Prairie, Wis. ....	Feb. 9, 1858.
20108	Railroad stations, machinery for supplying tenders with water at. ....	William McVeigh .....	Beone, Ill. ....	April 27, 1858.
20959	Railroad-switch .....	B. M. Van Der Veer .....	Clyde, N. Y. ....	
21006	Railroad-switch, signal lantern for .....	George R. Smith .....	Ithaca, N. Y. ....	July 20, 1858.
20620	Railroad-track and cast-iron pavement, com- bined .....	S. N. Lennon .....	Deposit, N. Y. ....	July 27, 1858.
19440	Railroad-track clearer .....	William Bryant, assignor to .....	Boston, Mass. ....	June 22, 1858.
19241	Railroad-track, mode of laying .....	Daniel D. Badger .....	New York, N. Y. ....	Feb. 23, 1858.
		Pelatiah Osgood .....	Waterville, Me. ....	Feb. 2, 1858; France,
		F. P. Dimpfel .....	Philadelphia, Penn. ....	Oct. 27, 1856.
21406	Railroad-tracks, joints for .....	E. U. Benedict .....	Horicon, Wis. ....	Sept. 7, 1858.
19165	Railroad-tracks, joints of .....	Charles A. Wakefield .....	New Haven, Conn. ....	Jan. 19, 1858.
21971	Railroad-turn or circular-switch, miner's .....	Elias B Lowman .....	Bell Air, Ohio .....	Nov. 2, 1858.
	Railroads and turnpikes, machine for breaking stones for ballasting. (See Class XV, letter S.)			
21007	Railroads, compound rails for .....	E. E. Lewis, W. B. Dunning, and C. Wheat.	Geneva, N. Y. ....	July 27, 1858.
19433	Railroads, construction of the permanent way of. ....	James E. McConnell and .....	Wolverton, England .....	Feb. 23, 1858; Eng-
20218	Railroads, implement for shooting missiles at cows, &c., on. ....	William Seaton .....	London, England .....	land, June 24, 1852.
	Railroads, mode of transmitting magnetic sig- nals on. (See Class VIII, letter S.)	Stephen Scotton .....	Richmond Ind. ....	May 11, 1858.
19718	Railroads, turning and sliding tables for .....	William Sellers .....	Philadelphia, Pa. ....	Mar. 23, 1858.
20828	Rails, continuous chair .....	C. A. Stancliff and James Mingis .....	Williamsport, Pa. ....	July 6, 1858.



List of patents for inventions, 1858—CLASS IX.

No.	Inventions or discoveries.	Patentees	Residence.	Date.
19053	Rails for railroads.....	Levi B. Tyng.....	Jersey City, N. J.....	Jan. 5, 1858.
22103	Rails for railroads.....	John Cochrane.....	New York, N. Y.....	Nov. 16, 1858.
19992	Rails for street railroads.....	John B. Henck.....	Boston, Mass.....	April 20, 1858.
21266	Rails for switching cars off the track.....	John C. Mather.....	New York, N. Y.....	Aug. 24, 1858.
20248	Rails, railroad, fastening.....	S. A. Beers.....	Kings county, N. Y.....	May 18, 1858.
20281	Rails, T, block for repairing.....	Sandford Mason and Edward M. Davis.....	Michigan City, Ind.....	May 18, 1858.
21480	Rails, T, joint for.....	E. U. Benedict.....	Horicon, Wis.....	Sept. 14, 1858.
21957	Rails, T, joint for.....	William Harvey.....	Albany, N. Y.....	Nov. 2, 1858.
22168	Railway bars, mode of securing the ends of.....	Christian E. Detmold.....	Orange, N. J.....	Nov. 30, 1858.
20452	Railway bars, rollers for.....	E. W. Stephens and R. Jenkins.....	Covington, Ky.....	June 1, 1858.
22031	Railway bars, rolling. (See Class II, letter R.)	Augustus Plinta.....	Albany, N. Y.....	Nov. 9, 1858.
22196	Railway bars, securing the ends of.....	John F. Peabody.....	Salem, Mass.....	Nov. 30, 1858.
20841	Railway-bridge signalizer.....	A. Burnham, assignor to himself and James M. Cook.	Taunton, Mass.....	July 6, 1858.
21380	Railway chairs, rolling. (See Class II, letter R.)	Amos H. Swett.....	Pittsburg, Pa.....	Aug. 31, 1858.
20793	Railway chairs, rolling.....	William Hall.....	Springfield, Mass.....	July 6, 1858.
21899	Railways, street, rails for.....	Samuel Nicolson.....	Boston, Mass.....	Oct. 26, 1858.
19704	Railways, superstructure of.....	Stephen H. Long, U. S. A.....	Louisville, Ky.....	Mar. 23, 1858.
19736	Railways, tracks for city.....	E. S. Gardner, assignor to himself and John H. Gould.	Philadelphia, Pa.....	Mar. 23, 1858.
19268	Railways, turning tables for.....	W. H. Ward.....	Auburn, N. Y.....	Feb. 2, 1858.
20060	Removing submarine deposits, method of.....	Eli Brazelton.....	St. Louis, Mo.....	Aug. 3, 1858.
19627	Roofing-cement.....	William T. De Golyer.....	Schenectady, N. Y.....	Mar. 16, 1858.
21553	Roofing-cement.....	G. W. Cushing.....	Chicago, Ill.....	Sept. 21, 1858.
19695	Roofing-cement, composition.....	Robert Glennon.....	New Orleans, La.....	Mar. 23, 1858.
19712	Roofing-cement, composition for.....	Bradley L. Prime.....	Hamilton, Ohio.....	Mar. 23, 1858.
20173	Roofing, cements for.....	Richard Simons.....	Rockford, Ill.....	May 24, 1858.
21246	Roofing-composition.....	Abram Davis.....	Chicago, Ill.....	Aug. 24, 1858.
22343	Roofing, composition for.....	C. A. Bremmer.....	Goshen, N. Y.....	Dec. 21, 1858.

21927	Roofing, compositions for .....	Josee Johnson, assignor to Joseph Ditto & Co.	New York, N. Y. ....	Oct. 26, 1858.
21643	Roofing-machine.....	Emanuel Wise, assignor to himself and Charles L. Wood.	Hannibal, Mo. ....	Sept. 28, 1858.
20636	Roofing, metallic.....	J. C. Gaston.....	Oxford, Ohio.....	June 22, 1858.
20059	Roofing-purposes, cement for. (See Class IV, letter C.)	J. F. Grassle .....	Hamilton, Ohio .....	April 27, 1858.
19314	Roofing-tiles.....	Stephen Scotton.....	Richmond, Ind.....	Feb. 9, 1858.
19661	Roofs, sheet metal, joints for.....	Charles Hartwell, assignor to Lewis L. Bartlett.	Boston, Mass.....	Mar. 16, 1858.
19661	Sash, metallic .....			
19941	Shutters, illuminating iron rolling.....	James C. McIntyre.....	New York, N. Y. ....	April 13, 1858.
20236	Shutters, metallic rolling .....	W. E. Worthen .....	New York, N. Y. ....	May 11, 1858.
20630	Shutters, metallic rolling .....	W. W. Cornell .....	New York, N. Y. ....	June 22, 1858.
21011	Sinks, sewers, &c, "flushing valve" trap for.....	Samuel Mathews.....	New York, N. Y. ....	July 27, 1858.
19426	Snow-plough .....	Franklin L. Knapp.....	Gosport, N. Y. ....	Feb. 23, 1858.
19577	Snow-plough .....	Joseph H. Pawling.....	Philadelphia, Pa.....	Mar. 9, 1858.
19950	Snow-plough .....	Samuel Richards.....	Philadelphia, Pa.....	April 13, 1858.
20484	Steps, &c., admitting light and air through .....	John B. Cornell .....	New York, N. Y. ....	June 8, 1858.
19070	Stump-extractor .....	S. P. Castle.....	Urbana, Ohio .....	Jan. 12, 1858.
19562	Stump-extractor .....	Washington Hall .....	Brewer, Me.....	Mar. 9, 1858.
22415	Stump-extractor .....	Francis M. Eagle .....	North Manchester, Ind.....	Dec. 28, 1858.
20494	Stumps, machine for cutting out.....	Frederic Kettler.....	Milwaukie, Wis .....	June 8, 1858.
19146	Switch, portable railroad.....	John C. Mather.....	New York, N. Y. ....	Jan. 19, 1858.
20367	Switch, railroad.....	Nathaniel Pullman.....	New Oregon, Iowa.....	May 25, 1858.
21631	Switch, railroad.....	Charles L. Spencer .....	Providence, R. I.....	Sept. 28, 1858.
21658	Switch, railroad.....	Charles C. Dodge.....	Marshall, Mich.....	Oct. 5, 1858.
21880	Switch, railroad.....	Simeon Heywood .....	Claremont, N. H.....	Oct. 26, 1858.
19397	Switch, railroad safety.....	Joseph Wood.....	Jersey City, N. J.....	Feb. 16, 1858.
21530	Tanks, water, mode of filling, at railway stations.	Charles Weed.....	Milledgeville, Ill.....	Sept. 14, 1858.
22035	Tiles, plates, beams, &c., connecting metallic.....	Silas T. Savage .....	Albany, N. Y. ....	Nov. 9, 1858.
19597	Trenching-plough .....	William Wise .....	Washington, D. C.....	Mar. 9, 1858.
19685	Tunnels, metallic, mode of connecting the sections of.....	John W. Cochran.....	New York, N. Y. ....	Mar. 23, 1858.
19639	Vault-covers, attaching the glasses of.....	George R. Jackson .....	New York, N. Y. ....	Mar. 16, 1858.
21050	Vault-covers, illuminating glasses for.....	Thaddeus Hyatt, assignor to George R. Jackson & Co.	New York, N. Y. ....	July 27, 1858.
20679	Vault-covers, safety .....	E. L. Brown, assignor to B. F. Brown.....	Boston, Mass.....	June 22, 1858.



*List of patents for inventions, 1858—Class IX.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22069	Vault-lights .....	Cornelius Donaldson .....	New York, N. Y. ....	Nov. 16, 1858.
21605	Vault-lights, metallic frames for .....	Michael Grosz and Peter H. Jackson .....	New York, N. Y. ....	Sept. 28, 1858.
20721	Vaults, &c., illuminating-covers for .....	E. P. Leonard and P. H. Jackson .....	New York, N. Y. ....	June 29, 1858.
21498	Walls under water, method of building .....	W. H. Horstmann .....	New York, N. Y. ....	Sept. 14, 1858.
22151	Wells, apparatus for boring .....	I. M. Butler .....	Oxford, Miss. ....	Nov. 23, 1858.
20611	Wharf, floating, revolving .....	Henry Albro .....	Covington, Ky. ....	June 22, 1858.
21648	Window-blind, rolling .....	S. W. Bidwell .....	Hartford, Ct. ....	Oct. 5, 1858.
22177	Window-blind slats, machine for making .....	Isaac W. Gere .....	South Granby, N. Y. ....	Nov. 30, 1858.
21417	Window-blinds .....	A. Herder .....	New York, N. Y. ....	Sept. 7, 1858.
20576	Window-blinds, metallic .....	Charles Neer .....	Troy, N. Y. ....	June 15, 1858.
21732	Window-blinds, method of adjusting .....	W. H. Babcock .....	Homer, N. Y. ....	Oct. 12, 1858.
19488	Window-blinds, operating .....	Theodore Christian .....	New York, N. Y. ....	Mar. 2, 1858.
20996	Window-blinds, operating .....	Andrew Ferber .....	Elizabeth City, N. J. ....	July 27, 1858.
21408	Window-blinds, operating .....	Theodore Christian .....	New York, N. Y. ....	Sept. 7, 1858.
19362	Window-blinds, turn-buckle for. (See Class II, letter B.)	Sebastian Haas .....	Buffalo, N. Y. ....	Feb. 16, 1858.
21136	Window-frame .....	Ross Johnson .....	Frederick, Md. ....	Aug. 10, 1858.
22365	Window-sash, hanging .....	Theodore F. Hall .....	Marietta, Ohio .....	Dec. 21, 1858.
19301	Window-sash, hanging .....	Robert H. Kirck .....	Utica, N. Y. ....	Feb. 9, 1858.
19267	Window-sash, removable .....	Francis Thrasher and Henry B. Horton .....	Akron, Ohio .....	Feb. 2, 1858.
20857	Window-sashes, fastening for .....	Dana Bickford .....	Westerly, R. I. ....	July 13, 1858.
19348	Window-sashes, spring-pulley for .....	John B. Cornell .....	New York, N. Y. ....	Feb. 16, 1858.
21916	Window-shutter, metallic .....	Turner Williams .....	Providence, R. I. ....	Oct. 26, 1858.
	Window-spring. (See Class II, letter S.)			
	Window-stop .....			

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19762	Axle-boxes .....	W. B. Fahnestock .....	Lancaster, Pa. ....	Mar. 30, 1858.
21998	Axle-boxes .....	Henry Howson, assignor to I. P. and J. L. Wendell. ....	Philadelphia, Pa. ....	Nov. 2, 1858.
21943	Axle-boxes, car .....	John W. Cochran .....	New York, N. Y. ....	Nov. 2, 1858.
20991	Axle-boxes, &c. ....	David Cumming .....	Sorrel Horse, Pa. ....	July 27, 1858.
21652	Axles, car, lubricating .....	John W. Cochran .....	New York, N. Y. ....	Oct. 5, 1858.
20535	Car axle-boxes from pedestals, disconnecting .....	W. D. Arnett .....	Chicago, Ill. ....	June 15, 1858.
19290	Car axle-boxes, railroad .....	George W. Geisendorff and J. C. Geisendorff. ....	Indianapolis, Ind. ....	Feb. 9, 1858.
19741	Car axle-boxes, railroad .....	J. C. Geisendorff .....	Cincinnati, Ohio. ....	Mar. 23, 1858.
19840	Car axles, railroad, box-cases and lubricators for. ....	R. N. Allen .....	Cleveland, Ohio. ....	April 6, 1858.
19530	Car-axles, railroad, boxes and journals for .....	Isaac P. Wendell .....	Philadelphia, Pa. ....	Mar. 2, 1858.
19095	Car-boxes, railroad .....	David Matthew .....	Philadelphia, Pa. ....	Jan. 12, 1858.
21996	Car-brake .....	J. N. Ward .....	Brooklyn, N. Y. ....	Nov. 2, 1858.
22291	Car-brake .....	Joseph Hough and Jacob Moore. ....	Buckingham, Pa. ....	Dec. 14, 1858.
19012	Car-brake, railroad .....	John L. Branch, Isaac Branch, and Daniel W. Branch. ....	Bart, Pa. ....	Jan. 5, 1858.
19157	Car-brake, railroad .....	Thomas W. Smith .....	Charleston, S. C. ....	Jan. 19, 1858.
19223	Car-brake, railroad .....	George W. Windsor .....	Alexandria, Va. ....	Jan. 26, 1858.
19192	Car-brake, railroad .....	Samuel Gumaer .....	Allegheny, Pa. ....	Jan. 26, 1858.
19260	Car-brake, railroad .....	Nathaniel Potter .....	Chicago, Ill. ....	Feb. 2, 1858.
19599	Car-brake, railroad .....	Stephen M. Whipple .....	Hillsdale, Mich. ....	Mar. 9, 1858.
19734	Car-brake, railroad .....	Daniel H. Feger, assignor to himself and Mahlon M. Wombaugh. ....	North Adams, Mass. ....	Mar. 23, 1858.
19917	Car-brake, railroad .....	Gideon Dorsch .....	Cincinnati, Ohio .....	April 13, 1858.
20237	Car-brake, railroad .....	George W. Zeigler .....	Schenectady, N. Y. ....	May 11, 1858.
20339	Car-brake, railroad .....	C. H. Eisenbrandt .....	Tiffin, Ohio .....	May 25, 1858.
20429	Car-brake, railroad .....	Thomas Hopper .....	Baltimore, Md. ....	June 1, 1858.
20468	Car-brake, railroad .....	G. W. Cummings, assignor to D. K. Jackson and Joseph Hanna. ....	Newark, N. J. ....	June 1, 1858.
			Philadelphia, Pa. ....	



List of patents for inventions, 1858—CLASS X.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20769	Car-brake, railroad.....	Henry M. Collier .....	Binghamton, N. Y .....	June 29, 1858.
21038	Car-brake, railroad.....	W. B. Wait .....	Portsmouth, N. H .....	July 27, 1858.
22213	Car-brake, railroad.....	Asa L. Whipple.....	Elmira, N. Y .....	Nov. 30, 1858.
22229	Car-brake, railroad .....	Henry E. Chapman .....	Albany, N. Y .....	Dec. 7, 1858.
22455	Car-brake, railroad .....	John W. Rice .....	Springfield, Mass.....	Dec. 28, 1858.
	Car-brakes, application of magnetic batteries to. (See Class VIII, letter E.)			
20627	Car-coupling.....	C. B. Cotter .....	Harrisburg, Pa .....	June 22, 1858.
21737	Car-coupling.....	George S. Bishop .....	Washington, D. C.....	Oct. 12, 1858.
19021	Car-coupling, railroad .....	James M. Connel .....	Newark, Ohio .....	Jan. 5, 1858.
19049	Car-coupling, railroad .....	John Schneider.....	Chicago, Ill.....	Jan. 5, 1858.
19186	Car-coupling, railroad .....	George W. Doolittle.....	Richfield Springs, N. Y .....	Jan. 26, 1858.
19204	Car-coupling, railroad .....	John Pearson .....	Sterling, Iowa.....	Jan. 26, 1858.
19794	Car-coupling, railroad .....	John W. Rice .....	Springfield, Mass.....	Mar. 30, 1858.
19925	Car-coupling, railroad .....	Albert Hebbard .....	Galesburg, Ill.....	April 13, 1858.
20139	Car-coupling, railroad .....	William H. Burridge and Nathan L. Post.....	Cleveland, Ohio.....	May 4, 1858.
20264	Car-coupling, railroad .....	F. E. Gleason.....	Columbus, Ohio .....	May 18, 1858.
20392	Car-coupling, railroad .....	A. Lapham and D. H. Burns, assignors to themselves and C. A. Durgin.	Brooklyn, N. Y .....	May 25, 1858.
20817	Car-coupling, railroad .....	J. H. Quackenbush.....	Owasso, Mich.....	July 6, 1858.
21486	Car-coupling, railroad .....	J. W. Corey.....	Crawfordsville, Ind .....	Sept. 14, 1858.
21502	Car-coupling, railroad .....	Charles P. Kenyon.....	Wilson, N. C.....	Sept. 14, 1858.
21901	Car-coupling, railroad .....	Philander Perry .....	Troy, N. Y .....	Oct. 26, 1858.
21356	Car-seat.....	William Painter.....	Wilmington, Del .....	Aug. 31, 1858.
21870	Car-seat.....	A. C. Blondyn.....	St. Joseph, Mo.....	Oct. 26, 1858.
21967	Car-seat.....	P. P. Joseff.....	Philadelphia, Pa.....	Nov. 2, 1858.
21985	Car-seat.....	John W. Sibbet.....	Cincinnati, Ohio .....	Nov. 2, 1858.
19079	Car-seat, railroad .....	Jacob S. Denman.....	Brooklyn, N. Y .....	Jan. 12, 1858.
19910	Car-seat, railroad .....	David Buzzell.....	Charlestown, Mass .....	April 13, 1858.
20654	Car-seat, railroad .....	John Millar.....	Paterson, N. J .....	June 22, 1858.
21052	Car-seat, railroad .....	John McMurtry, assignor to James B. Clow and John Best.	Fayette county, Ky .....	July 27, 1858.

21178	Car-seat, railroad	James M. Baird.	Wheeling, Va	Aug. 17, 1858.
21352	Car-seat, railroad	C. M. Mann	Detroit, Mich	Aug. 31, 1858.
21326	Car-seat, railroad	John C. De Witt.	West Bloomfield, N. J	Aug. 31, 1858.
21727	Car-seat, railroad	Draper Stone, assignor to himself and E. S. Turner.	Milwaukie, Wis	Oct. 5, 1858.
22471	Car-seat, railroad	George L. Dulaney, assignor to himself and Solomon K. Moore.	Mount Jackson, Va	Dec. 28, 1858.
20622	Car-seats and berths, railroad	S. C. Case.	Detroit, Mich	June 22, 1858.
21251	Car-seats and couches	I. N. Forrester	Fairfax C. H., Va	Aug. 24, 1858.
21331	Car-seats and couches	K. Freeman.	Fond du Lac, Wis	Aug. 31, 1858.
21412	Car-seats and couches	R. E. Fowler	Clayton, N. Y	Sept. 7, 1858.
21536	Car-seats and couches	Alexander M. Holmes, assignor to himself and A. G. Purdy.	Eaton, N. Y	Sept. 14, 1858; additional improvement Dec. 21, 1858.
22283	Car-seats and couches	G. W. Fairfield	Holyoke, Mass	Dec. 14, 1858.
22338	Car-seats and couches	Horace L. Arnold.	Elk Horn, Wis	Dec. 21, 1858.
22462	Car-seats and couches, railroad	Nathan Thompson, jr	Brooklyn, N. Y	Dec. 28, 1858.
21952	Car-springs	Perry G. Gardiner	New York, N. Y	Nov. 2, 1858.
22292	Car-springs	Charles R. Hurlburt.	Seymour, Conn	Dec. 14, 1858.
21624	Car-springs, India-rubber	Sanford Peatfield	Ipswich, Mass	Sept. 28, 1858.
19767	Car-springs, machine for testing and measuring the strength of.	Perry G. Gardiner	New York, N. Y	Mar. 30, 1858.
19219	Car-springs, railroad	Henry Waterman	Hudson, N. Y	Jan. 26, 1858.
19448	Car-springs, railroad	David B. Rogers.	Pittsburg, Pa.	Feb. 23, 1858.
19435	Car-springs, railroad	Stephen Morse	Springfield, Mass	Feb. 23, 1858.
20148	Car-springs, railroad	A. M. De Hart.	Reading, Pa.	May 4, 1858.
20998	Car-springs, railroad	John J. Fields.	Brooklyn, N. Y	July 27, 1858.
21603	Car-springs, tempering steel.	Perry G. Gardiner	New York, N. Y	Sept. 28, 1858.
19763	Car-wheels	William B. Fahnestock	Lancaster, Pa.	Mar. 30, 1858.
20583	Car-wheels	John Pugh	Franklin, Tenn	June 15, 1858.
21614	Car-wheels, cast-iron	H. W. Moore.	Jersey City, N. J	Sept. 28, 1858.
20924	Car-wheels, casting. (See Class II, letter C.) Car-wheels, cooling. (See Class II, letter I.)	R. Poole, assignor to himself and German H. Hunt.	Baltimore, Md.	July 13, 1858.
19380	Car-wheels, railroad	Stephen E. Parrish.	Nashville, Tenn	Feb. 16, 1858.
19445	Car-wheels, railroad	Seymour Rogers.	Pittsburg, Pa	Feb. 23, 1858.
19776	Car-wheels, railroad	William W. Hubbell and Richard H. Hubbell.	Philadelphia, Pa. } Delaware county, Pa. }	Mar. 30, 1858.



*List of patents for inventions, 1858—CLASS X.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19810	Car-wheels, railroad.....	H. C. Bulkley, assignor to James M. Ross.	Springfield, Mass.....	Mar. 30, 1858.
22049	Car-wheels, railroad.....	Thomas C. Ball, assignor to himself, L. Bisco, A. S. Davis, K. Crossfield, Edward Edwards, and Jacob Green.	Keene, N. H.....	Nov. 9, 1858.
20004	Car-wheels, railroad, securing tires to.....	Lea Pusey.....	Philadelphia, Pa.....	April 20, 1858.
20610	Car-wheels, &c.....	W. Willoughby, assignor to himself and W. H. Wizeman.	Markwell, Miss.....	June 15, 1858.
	Carriage-axles, machine for upsetting. (See Class II, letter A.)			
21391	Carriage-bows, attaching the props of.....	D. B. Wright and L. Sawyer.....	South Amesbury, Mass.....	Aug. 31, 1858.
20412	Carriage-brake.....	George L. Dickson.....	Carbondale, Pa.....	June 1, 1858.
21353	Carriage, children's.....	W. P. McKinstry.....	New York, N. Y.....	Aug. 31, 1858.
22300	Carriage, children's.....	Gilbert Maynard.....	Greenfield, Mass.....	Dec. 14, 1858.
21449	Carriage, hose.....	I. S. Schuyler and L. A. Rockwell.....	New York, N. Y.....	Sept. 7, 1858.
22304	Carriage-seats, adjustable.....	Henry H. Potter.....	Carthage, N. Y.....	Dec. 14, 1858.
21420	Carriage-shafts, convertible.....	Amos K. Hoffmeier.....	Lancaster, Pa.....	Sept. 7, 1858.
19396	Carriage-spring guard.....	Thomas Winans.....	Baltimore, Md.....	Feb. 16, 1858.
20497	Carriage-springs.....	D. M. Lane.....	West Philadelphia, Pa.....	June 8, 1858.
20820	Carriage-springs, attaching.....	Luther O. Rice.....	Berlin, Canada West.....	July 6, 1858.
19102	Carriage-springs, equalizing.....	Daniel G. Rollin.....	New York, N. Y.....	Jan. 12, 1858.
20268	Carriage-springs, forming the heads of.....	Samuel H. Hartman.....	Pittsburg, Pa.....	May 18, 1858.
22314	Carriage-thills to axles, attaching.....	John W. Sibbet.....	Cincinnati, Ohio.....	Dec. 14, 1858.
19065	Carriage-top.....	Newton Benedict.....	Aurelius, N. Y.....	Jan. 12, 1858.
21766	Carriage-wheels, box for.....	R. W. McClelland.....	Pekin, Ill.....	Oct. 12, 1858.
21083	Carriage-wheels, hubs for.....	Norman Platt.....	Jackson, Miss.....	Aug. 3, 1858.
19320	Carriage-wheels, hubs for.....	James M. Whiting, assignor to George F. Wilson and Alfred Anthony.....	New Bedford, Mass.....	Mar. 30, 1858.
19478	Carriage-wheels, metallic.....	Waldren Beach.....	Providence, R. I.....	Mar. 2, 1858.
20586	Carriage-wheels, metallic hub for.....	S. I. Russell.....	Baltimore, Md.....	June 15, 1858.
20869	Carriage-wheels, metallic hub for.....	N. T. Edson.....	Chicago, Ill.....	July 13, 1858.
19951	Carriage-wheels, tightening the spokes and fellows of.....	B. A. Rogers.....	New Orleans, La.....	April 13, 1858.
			Shubuta, Miss.....	

19731	Carriage-wheels, tightening the tires of.....	Robert B. Scott.....	Philadelphia, Pa.....	Mar. 23, 1858; add'l imp't June 8, 1858.
19264	Carriages, adjustable axle-brace for .....	F. O. Rogers .....	Elmira, N. Y.....	Feb. 2, 1858.
21012	Carriages for children, hanging.....	Gilbert Maynard.....	Greenfield, Mass.....	July 27, 1858.
19113	Carriages, shafts and poles to, attaching .....	V. N. Mitchell, assignor to himself, H. A. Area, and C. N. White.	Concord, N. C.....	Jan. 12, 1858.
19446	Carriages, &c., boxes for receiving money in....	James Rodgers.....	New York, N. Y.....	Feb. 23, 1858.
19676	Carriages, &c., securing the wheels of .....	Adolphus Bruns .....	Davenport, Iowa .....	Mar. 23, 1858.
21536	Cars and locomotives when without steam, windlass for moving.	Charles Page .....	West Meriden, Conn.....	Oct. 5, 1858.
21086	Cars, brakes for railroad.....	John W. Rice .....	Springfield, Mass .....	Aug. 3, 1858.
20614	Cars from running off the track, preventing.....	Leverett Ball .....	Auburn, N. Y.....	June 22, 1858.
21026	Cars, horse railway, coupling for.....	Blaney E. Sampson .....	Boston, Mass.....	July 27, 1858.
20675	Cars on the track, railroad, machine for replacing.	John Whyte.....	Boston, Mass.....	June 22, 1858.
21469	Cars, railroad, couch-seats for.....	John Hartman, jr., assignor to John Hart- man, sr.	Philadelphia, Pa .....	Sept. 7, 1858.
21436	Cars, railroad, couches for .....	F. R. Myers and F. H. Furniss.....	Cleveland, Ohio.....	Sept. 7, 1858.
21600	Cars, railroad, couches for .....	J. B. Creighton.....	Tiffin, Ohio .....	Sept. 28, 1858.
20983	Cars, railroad, coupling for .....	George S. Bishop .....	Washington, D. C.....	July 27, 1858.
21244	Cars, railroad, coupling for .....	J. Campbell, V. B. Lighthizer, and P. Shannon.	Steubenville, Ohio.....	Aug. 24, 1858.
20070	Cars, railroad, elliptic cushions for.....	Samuel R. Jones.....	York, Pa.....	April 27, 1858; reis- sued Oct. 26, 1858.
20254	Cars, railroad, for day and night service .....	J. B. Creighton.....	Tiffin, Ohio.....	May 18, 1858; reis- sued Sept. 21, 1858.
20021	Cars, railroad, method of ventilating.....	Calvin Pepper, assignor to Nelson R. Scovel.	Albany, N. Y .....	April 20, 1858.
20176	Cars, railroad, method of ventilating and ex- cluding dust from.	A. B. Spencer .....	Rochester, N. Y .....	May 4, 1858.
19574	Cars, railroad, mode of operating brakes of....	Melville McGee.....	Jackson, Mich.....	Mar. 9, 1858.
21259	Cars, railroad, running gear for.....	James Ingersoll .....	Grafton, Ohio.....	Aug. 24, 1858.
20293	Cars, railroad, safety attachment for.....	H. A. Newhall.....	Newton, Mass.....	May 18, 1858.
22364	Cars, railroad, seats and sleeping couches for..	Plymon B. Green.....	Chicago, Ill.....	Dec. 21, 1858.
22025	Cars, railroad, sleeping berths for.....	D. M. Lawrence .....	Cincinnati, Ohio.....	Nov. 9, 1858.
21992	Cars, railroad, speed indicator and recorder for.	J. D. Steel and W. Lorenz.....	Pottstown, Pa.....	Nov. 2, 1858.
20418	Cars, railroad, springs for.....	Heman Gardiner.....	New York, N. Y.....	June 1, 1858.
19789	Cars, railroad, ticket-holders for.....	M. L. Mickles and L. S. Olmsted.....	Aurora, Ill.....	Mar. 30, 1858.
19331	Cars, railway, mode of connecting the trucks of.	T. F. Allen .....	Dyersville, Iowa.....	Feb. 16, 1858.
21099	Cars, sleeping, for railroads .....	Eli Wheeler.....	Elmira, N. Y.....	Aug. 3, 1858.
21070	Cars, sleeping, for railroads.....	Charles L. Harrington.....	Buffalo, N. Y.....	Aug. 3, 1858.



*List of patents for inventions, 1858—CLASS X.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20507	Chair, railroad. (See Class IX, letter R.)	Charles G. Page	Washington, D. C.	June 8, 1858.
20197	Chairs, railroad, manufacture of wrought iron. (See Class IX, letter R.)	Lovett Eames	Kalamazoo, Mich.	May 11, 1858.
19424	Chairs, railway, rolling. (See Class IX, letter R.)			
20363	Head-rest, combined umbrella and	D. A. Hopkins	Paterson, N. J.	Feb. 23, 1858.
19548	Hub-machine	J. A. Norris	Philadelphia, Pa.	May 25, 1858.
	Hubs, arrangement of cutters for turning. (See Class XIV, letter T.)	Levi Dederick	Albany, N. Y.	Mar. 9, 1858.
19471	Journal-box	Israel S. Reeves, assignor to I. B. Slawson.	New Orleans, La.	Feb. 23, 1858; reissued Nov. 23, 1858.
19765	Journal-box	S. W. Francis	New York, N. Y.	Mar. 30, 1858.
20349	Journal-boxes of connecting rods or pitmen, mode of tightening and securing the keys of the.	Royal E. House	Binghamton, N. Y.	May 25, 1858.
20986	Omnibus fare-box.	Louis Brauer	Washington, D. C.	July 27, 1858.
21372	Omnibus fares, cane for paying	I. B. Slawson	New Orleans, La.	Aug. 31, 1858.
22295	Omnibus-register	Albertus Larrowe	Cohocton, N. Y.	Dec. 14, 1858.
19994	Omnibus-register	John Hoyt	Fishkill, N. Y.	April 20, 1858.
19980	Omnibuses, &c., fare-boxes for	Silas Bullard	Hartland, Mich.	April 20, 1858.
20903	Railroad trains, method of registering speed of. (See Class VIII, letter R.)	William W. St. John	Lima, N. Y.	July 13, 1858.
21255	Sled-brake	James Harrison, jr.	New York, N. Y.	Aug. 24, 1858.
19764	Sleds, runners of	William R. Fee	Cincinnati, Ohio	Mar. 30, 1858.
21255	Sleds, runners of	Daniel G. Rollin	New York, N. Y.	Feb. 23, 1858.
19764	Sleigh-runners, attaching	George J. Lucas, assignor to himself and John G. Lucas.	Poughkeepsie, N. Y.	April 27, 1858.
21255	Springs, metallic	John A. Boyce	Monroe, N. Y.	April 27, 1858.
19764	Springs, pneumatic			
19450	Springs, volute			
20127	Vehicles, adjustable seats of			
20033	Vehicles, attaching shafts to			

19567	Vehicles, attaching the springs of	F. L. Kidder and A. E. Aeby	Brooklyn, N. Y.	Mar. 9, 1858.
19568	Vehicles, fifth wheel for	H. T. Goodale	Clinton, Mass.	Mar. 9, 1858.
20652	Vehicles, metallic wheels for	T. McConaughy and J. McCollum	Burnsville, Ala.	June 22, 1858.
19088	Vehicles, wheel	John Heiden	New York, N. Y.	Jan. 12, 1858.
19092	Velocipede	Louis Kellner	Brooklyn, N. Y.	Jan. 12, 1858.
21615	Wagon, ambulance	Israel Moses	New York, N. Y.	Sept. 28, 1858.
19112	Wagon-brake	Sylvester A. Hough, assignor to himself and A. S. Hough.	Oxford, Ga.	Jan. 12, 1858.
21569	Wagon-brake, self-acting	Albertus Larrowe	Cohocton, N. Y.	Sept. 21, 1858.
19477	Wagon, manure	Jethro W. Barnes	Murfreesboro', N. C.	Mar. 2, 1858.
19550	Wagon-tire, machine for fitting	Edward L. Dorsey	Johnson county, Ind.	Mar. 9, 1858.
19372	Wagons, extension reach for	J. W. Langdon	Marengo, Ill.	Feb. 16, 1858.
20795	Wagons, running gear of	Jonathan Hibbs	Tullytown, Pa.	July 6, 1858.
20504	Wagons, &c., brake for	B. B. Munroe	South Dansville, N. Y.	June 8, 1858.
19947	Wheels of steam vehicles, ploughs, &c., giving adhesion to driving.	John T. Price	Rockville, Ind.	April 13, 1858.
21081	Whiffle-tree, safety	George F. Outten	Norfolk county, Va.	Aug. 3, 1858.

CLASS XI.—HYDRAULICS AND PNEUMATICS, including water-wheels, wind mills, and other implements operated on by air or water, or employed in the raising and delivery of fluids.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22219	Air-engine	Henry M. Paine	Worcester, Mass.	Nov. 30, 1858.
22281	Air-engine	John Ericsson	New York, N. Y.	Dec. 14, 1858.
19475	Bellows	Jacob Arnoldt	Wheeling, Va.	Mar. 2, 1858.
20045	Blowing apparatus	David Cumming	Sorrel Horse, Pa.	April 27, 1858.
19013	Cock, supply	William S. Carr	New York, N. Y.	Jan. 5, 1858.
20314	Cock, valve	Seth Adams	Boston, Mass.	May 25, 1858.
20788	Faucet	Henry Getty	Brooklyn, N. Y.	July 6, 1858.
20853	Faucet	N. P. Whittlesey, assignor to James A. Frary.	Meriden, Conn.	July 6, 1858.
22402	Faucet	Martin Robbins and James Powell, assignors to James Powell.	Cincinnati, Ohio.	Dec. 21, 1858.



## List of patents for inventions, 1858—CLASS XI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20799	Faucet, measuring	Gilbert Hubbard	Montville, Mass.	July 6, 1858.
19929	Faucets, casting. (See Class II, letter C.)	A. Jaminet	Florisant, Mo.	April 13, 1858.
19335	Filterer, water	Charles Ballard	Worcester, Mass.	Feb. 16, 1858.
21964	Filtering apparatus	Lemuel P. Jenks and Francis Draper	Boston, Mass.	Nov. 2, 1858.
21809	Filtering-cock	John K. Barney	East Cambridge, Mass.	Oct. 19, 1858.
21814	Gauge for contents of casks, &c.	Erastus T. Bussell and Joseph Smith	Warren, R. I.	Oct. 19, 1858.
20532	Gauge, liquid	Charles Vander Woerd, assignor to Alvah Clark & Sons.	Cincinnati, Ohio	June 8, 1858.
22166	Hose-coupling	James C. Cooke	Cambridge, Mass.	Nov. 30, 1858.
22296	Hose, engine	Charles L. Lenzmann	Middletown, Conn.	Dec. 14, 1858.
21307	Hose, &c., machine for cleaning	John B. Alden, jr., and Edwin L. Gates.	Brooklyn, N. Y.	Aug. 31, 1858.
19029	Hydrant	John Hyde	Worcester, Mass.	Jan. 5, 1858.
19022	Hydrant	Richard De Charms	New York, N. Y.	Jan. 5, 1858.
19206	Hydrant	W. Race and S. R. C. Mathews	Philadelphia, Pa.	Jan. 26, 1858.
19330	Hydrant	Kingston Goddard	Seneca Falls, N. Y.	Feb. 9, 1858.
19513	Hydrant	James Powell	Philadelphia, Pa.	Mar. 2, 1858.
19511	Hydrant	John Parham and Samuel P. Parham	Cincinnati, Ohio	Mar. 2, 1858.
21338	Hydrant	James R. Higgs	Philadelphia, Pa.	Aug. 31, 1858.
21858	Hydrant	James Swan	Trenton, N. J.	Oct. 19, 1858.
22357	Hydrant	Samuel P. Francisco and Wm. P. Dickinson.	Utica, N. Y.	Dec. 21, 1858.
19224	Hydraulic-engine	Jas S. Gwynne, assignor to Samuel Nicolson	Brooklyn, N. Y.	Jan. 26, 1858.
20523	Hydraulic ram	Joseph F. Warner	Reading, Pa.	June 8, 1858.
19398	Hydraulic valve	Calvin and George M. Woodward	New York, N. Y.	Feb. 16, 1858.
20169	Metre, fluid	William C. Perrine	New York, N. Y.	May 4, 1858.
20979	Metre, fluid	E. D. Weatherbee, assignor to himself and L. Harding.	Worcester, Mass.	July 20, 1858.
22315	Metre, fluid	Charles William Siemens	London, England	Dec. 14, 1858; Eng-land, Mar. 4, 1853.

19414	Metre, water	William M. Faris	Wheeling, Va.	Feb. 23, 1858.
20842	Metre, water	William Durker, jr., assignor to J. B. Thompson.	Philadelphia, Pa.	July 6, 1858.
21283	Metre, water	F. A. Tenney	Concord, N. H.	Aug. 24, 1858.
19286	Pump	William Boyers	Mount Carroll, Ill.	Feb. 9, 1858.
19699	Pump	J. O. Joyce	Cincinnati, Ohio	Mar. 23, 1858.
19671	Pump	James B. Atwater	Brooklyn, N. Y.	Mar. 23, 1858.
20442	Pump	S. S. Putnam	Boston, Mass.	June 1, 1858.
20787	Pump	A. A. Genung	Painesville, Ohio	July 6, 1858.
20783	Pump	Gilbert B. Farnam	Meriden, Conn.	July 6, 1858.
20880	Pump	George Hibscho	Buffalo, N. Y.	July 13, 1858.
21043	Pump	Henry Zeng	Elizabethport, N. J.	July 27, 1858.
21561	Pump	Foster Henshaw	Washington, D. C.	Sept. 21, 1858.
21560	Pump	S. H. Gray	Bridgeport, Conn.	Sept. 21, 1858.
21801	Pump	Henry W. Regan, assignor to himself and George H. Newer.	Cressora, Pa.	Oct. 12, 1858.
22201	Pump	O. W. Preston, jr.	Corning, N. Y.	Nov. 30, 1858.
22182	Pump	A. L. Keeperts and George Palmer	Littlestown, Pa.	Nov. 30, 1858.
22165	Pump	Asabel Cooley	Springfield, Ill.	Nov. 30, 1858.
19981	Pump and gasometer, compound air	Samuel Chichester	Poughkeepsie, N. Y.	April 20, 1858.
19173	Pump-bucket	William F. Horton, assignor to Walter K. Marvin.	Lockport, N. Y.	Jan. 19, 1858.
20443	Pump-bucket	Emmett Quinn	Trenton, N. J.	June 1, 1858.
21756	Pump, centrifugal	W. C. Hibbard	West Roxbury, Mass.	Oct. 12, 1858.
20060	Pump-coupling	S. H. Gray	Bridgeport, Conn.	April 27, 1858.
19907	Pump, double-acting force	Eugene Bellamy	St. Louis, Mo.	April 13, 1858.
19680	Pump, oscillating	Ezra Cope and Isaac W. Bragg	Cincinnati, Ohio	Mar. 23, 1858.
19834	Pump, portable	W. and B. Douglas	Middletown, Conn.	April 6, 1858.
19180	Pump, rotary	John S. Barden	New Haven, Conn.	Jan. 26, 1858.
19581	Pump, rotary	William Peirce	New Orleans, La.	Mar. 9, 1858.
20796	Pump, rotary	A. P. Holly	Seneca Falls, N. Y.	July 6, 1858.
21318	Pump, rotary	Levi Burnell	Milwaukee, Wis.	Aug. 31; add'l imp't Dec. 14, 1858.
21550	Pump, rotary	M. R. Clapp	Seneca Falls, N. Y.	Sept. 21, 1858.
21632	Pump, rotary	B. T. Trimmer	Rochester, N. Y.	Sept. 28, 1858.
21904	Pumps, mode of operating.	Daniel J. Rogers	Magnolia, N. C.	Oct. 26, 1858.
19276	Pumps, mode of operating pistons of.	Simeon Wood	Worcester, Mass.	Feb. 2, 1858.



## List of patents for inventions, 1858—CLASS XI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21071	Pumps, railroad station, mode of operating. (See Class IX, letter R.)	R. G. Hatfield	Mt. Vernon, N. Y	Aug. 3, 1858.
21898	Sound, tube for conveyance of. Springs, pneumatic. (See Class X, letter S.)	Robert Nelson	New York, N. Y	Oct. 26, 1858.
21928	Water, device for elevating, by the combustion of a volatilizable hydro-carbon.	Caleb Rider, assignor to George T. Mc- Lanthlin.	Plymouth, Mass.	Oct. 26, 1858.
19214	Water-wheel	Frederick Smith	Buffalo, N. Y	Jan. 26, 1858.
20187	Water wheel	Jesse Bartoo	East Aurora, N. Y	May 11, 1858.
20234	Water-wheel	Alonzo Warren and E. Damon, jr	Wareham, Mass	May 11, 1858.
20200	Water-wheel	J. H. Fairchild	Jericho, Vt.	May 11, 1858.
20335	Water-wheel	John Custer	Finley, Ohio	May 25, 1858.
20456	Water-wheel	John Tyler	West Lebanon, N. H.	June 1, 1858.
20921	Water-wheel	David R. Kraatz, assignor to himself and Isaac S. Roland.	Ephratah, Pa	July 13, 1858.
21578	Water-wheel	Alpha Smith	Sauquoit, N. Y	Sept. 21, 1858.
21753	Water-wheel	W. H. Harbough	Piqua, Ohio	Oct. 12, 1858.
21757	Water-wheel	J. P. and D. W. Hoyt	Lumber City, Pa	Oct. 12, 1858.
22282	Water-wheel	John H. Fairchild	Jericho, Vt.	Dec. 14, 1858.
21791	Water-wheel and chute	Alden Whitman	Auburn, Me	Oct. 12, 1858.
19115	Water-wheel, chute for	Chauncey B. Whitney, assignor to Philip Case.	Ithaca, N. Y	Jan. 12, 1858.
20437	Water-wheel, horizontal	John McCarty	Catharine, N. Y	June 1, 1858.
20350	Wind-wheel	James B. Johnson	San Francisco, Cal.	May 25, 1858.
20336	Wind-wheel	William H. Derrick	Stockton, Cal.	May 25, 1858.
19383	Wind-wheels, method of furling the sails of	George W. Shaw	Thompson, Conn.	Feb. 16, 1858.

CLASS XII.—LEVER, SCREW, AND OTHER MECHANICAL POWER, as applied to pressing, weighing, raising, and moving weights.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19830	Applying power to the cranks of engines. (See Class VI, letter E.) Bags, clasp for fastening.....	W. H. Cloud, A. L. Hatfield, and C. H. Burdick.	Fremont, Ohio.....	April 6, 1858.
21520	Balances, spring, in combination with a knife..	George H. Smith.....	Glenwood, Iowa.....	Sept. 14, 1858.
19437	Bale-hoops, cotton .....	John McMurtry, assignor to Daniel Whiel.	Lexington, Ky.....	Feb. 23, 1858.
21517	Bale-hoops, cotton, clasps for .....	Albert C. Richard.....	Newtown, Conn.....	Sept. 14, 1858.
21305	Bale-hoops, coupling for.....	John Agnew .....	Columbia, S. C.....	Aug. 31, 1858.
19709	Bale-ties, cotton .....	David G. Olmstead .....	Vicksburg, Miss.....	Mar. 23, 1858.
19490	Bales, cotton, metallic ties for.....	Frederic Cook .....	New Orleans, La. ....	Mar. 2, 1858.
20311	Bales, cotton, securing metallic bands on.....	P. C. Ingersoll, assignor to himself and H. F. Dougherty.	Green Point, N. Y.....	May 18, 1858.
21190	Bales, metallic bands for binding.....	William Field .....	Providence, R. I.....	Aug. 17, 1858.
21360	Bales, &c., cotton, machine for tightening and securing metallic bands for.	George W. Penniston .....	North Vernon, Ind.....	Aug. 31, 1858.
21272	Bales, &c., metallic bands or ties for.....	Increase C. Plant .....	Macon, Ga.....	Aug. 24, 1858.
21848	Bands, clasps for metallic or other flexible.....	Albert C. Richard.....	Newtown, Conn.....	Oct. 19, 1858.
22372	Elevating hay, machine for .....	James C. McGrew.....	Smithfield, Ohio.....	Dec. 21, 1858.
19087	Elevator, hay. (See Class I, letter H.)	James H. Gill .....	Mt. Pleasant, Ohio.....	Jan. 12, 1858.
19939	Elevator, hay and straw.....	George Martz.....	Pottsville, Pa.....	April 13, 1858.
20455	Hoisting and dumping coal, machine for.....	George Thompson.....	Cincinnati, Ohio.....	June 1, 1858.
19250	Hoisting and lowering goods, &c., machinery for.	Augustus Hunt.....	Philadelphia, Pa.....	Feb. 2, 1858.
	Hoisting ice, apparatus for.....			
	Hoisting ice, machine for. (See Class XXII, letter I.)			
20170	Hoisting-machine .....	Reuben Packard.....	Rockland, Me.....	May 4, 1858.
22008	Hoisting-machine .....	Daniel W. Barr.....	Lancaster, Pa.....	Nov. 9, 1858.
21837	Hoop-lock. (See Class XIV, letter H.)	William Kearney.....	Newark, N. J.....	Oct. 19, 1858.
20372	Jack, hoisting .....	Albert C. Richard.....	Newtown, Conn.....	May 25, 1858.
21342	Jack, lifting .....	Joel C. Jackson.....	Rochester, N. Y.....	Aug. 31, 1858.



*List of patents for inventions, 1858—CLASS XII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21107	Jack, mechanical .....	Amos Jones, assignor to himself and Solon M. Davis.	Lebanon, N. H. ....	Aug. 3, 1858.
20624	Lever-power, mode of applying .....	George E. Clay .....	Stillwater, Minn. ....	June 22, 1858.
21822	Lifting heavy weights, machine for .....	T. J. Davis and .....	Scroepell, N. Y. ....	Oct. 19, 1858.
19291	Lubricating apparatus for journal-boxes of railroad-cars.	J. B. Warner .....	Volney, N. Y. ....	Feb. 9, 1858.
20331	Lubricating car-axles .....	Jacob C. Geisendorff .....	Cincinnati, Ohio .....	May 25, 1858.
20406	Lubricating car-axles .....	John W. Cochran .....	New York, N. Y. ....	June 1, 1858.
20674	Lubricating engines, oil-cups for .....	George W. Cochran .....	New York, N. Y. ....	June 22, 1858.
19108	Lubricating journals, &c., method of, by a pendulum valve arrangement.	S. H. Whitmore .....	Cincinnati, Ohio .....	Jan. 12, 1858.
19551	Lubricating the axle-boxes of carriage-wheels ..	John B. Tom and Stephen D. Tucker .....	New York, N. Y. ....	Mar. 9, 1858.
19385	Lubricator .....	William Diller .....	Lancaster, Pa. ....	Feb. 16, 1858.
21816	Lubricator .....	William K. Stevens .....	Alexandria, La. ....	Oct. 19, 1858.
19750	Lubricator for railroad-axles .....	Elias Clampitt .....	Baltimore, Md. ....	Mar. 30, 1858.
20665	Machinery, oil-cup for .....	William Clough .....	Madison, Ind. ....	June 22, 1858.
19572	Packing flour, machine for .....	R. Ross and W. Holland .....	Philadelphia, Pa. ....	Mar. 9, 1858.
19811	Press .....	Judson Mattison .....	Oswego, N. Y. ....	Mar. 30, 1858.
22387	Press, cam .....	S. Ingersoll, assignor to himself, S. B. Turner, and George W. Kimball.	Brooklyn, N. Y. ....	Dec. 21, 1858.
20346	Press, cheese .....	Enoch Thomas .....	Beverly, Va. ....	May 25, 1858.
21883	Press, cheese .....	Jacob Hibbard .....	Weathersfield, N. Y. ....	Oct. 26, 1858.
19071	Press, cotton .....	Hartwell Kendall .....	East Dorset, Vt. ....	Jan. 12, 1858.
19202	Press, cotton .....	Nathan Chapman .....	Mystic River, Vt. ....	Jan. 26, 1858.
19279	Press, cotton .....	David G. Olmstead .....	Vicksburg, Miss. ....	Feb. 2, 1858.
19399	Press, cotton .....	James A. Disbrow and James E. Cronk, assignors to J. A. Disbrow.	Poughkeepsie, N. Y. ....	Feb. 16, 1858.
19381	Press, cotton .....	F. W. Witting .....	Yorktown, Tex. ....	Feb. 26, 1858.
19413	Press, cotton .....	H. W. Randle .....	Barnsville, Ala. ....	Feb. 28, 1858.
19571	Press, cotton .....	Eugene Duchamp .....	St Martinsville, La. ....	Mar. 9, 1858.
19714	Press, cotton .....	Josephus Loving .....	Moscow, Tenn. ....	Mar. 23, 1858.
		Hiram Ross .....	Rockport, Ind. ....	

19821	Press, cotton .....	Henry Shrader.....	Burnsville, Ala.....	Mar. 30, 1858.
19838	Press, cotton .....	William Field .....	Providence, R. I.....	April 6, 1858.
20973	Press, cotton .....	R. G. Williams.....	Hannahatchee, Ga.....	July 20, 1858.
21317	Press, cotton .....	Thomas J. Bottoms & James A. Bullock..	Thomas county, Ga.....	Aug. 31, 1858.
21894	Press, cotton .....	Cornelius Martratt.....	Waterford, N. Y.....	Oct. 26, 1858.
19708	Press for extracting oil from linseed .....	Charles Moore.....	Trenton, N. J.....	Mar. 23, 1858.
19149	Press for packing the pulp of linseed or other seeds preparatory to extracting the oil from them.	Charles Moore.....	Trenton, N. J.....	Jan. 19, 1858.
20551	Press, hay and cotton.....	L. L. Cummings.....	Munnsville, N. Y.....	June 15, 1858.
22216	Press, hay and cotton.....	Henry Barnes, assignor to himself and N. G. Macrum.	Blairsville, Pa.....	Nov. 30, 1858.
19232	Press, jack-screw.....	Joseph W. Bocage .....	Pine Bluff, Ark.....	Feb. 2, 1858.
20509	Press, ratchet .....	Philip H. Raiford.....	Mobile, Ala.....	June 8, 1858.
19256	Press, tobacco .....	William R. Musser and.....	Baltimore, Md.....	Feb. 2, 1858.
21079	Press, mode of operating .....	John Coleman.....	Lynchburg, Va.....	Aug. 3, 1858.
20947	Pressing grapes, machine for.....	David L. Miller .....	Madison, N. J.....	July 20, 1858.
22014	Pressing tobacco, machinery for.....	Henry Krause .....	New York, N. Y.....	Nov. 9, 1858.
20623	Raising marl, dirt, &c., machine for.....	William Cameron.....	Petersburg, Va.....	June 22, 1858.
21145	Scales, counter.....	T. F. Christman.....	Wilson, N. C.....	Aug. 10, 1858.
19061	Scales, platform .....	H. B. Osgood .....	New Haven, Conn.....	Jan. 5, 1858.
19385	Scales, platform .....	James Kelly, assignor to himself and John Sherry.	Sag Harbor, N. Y.....	April 20, 1858.
20492	Scales, platform .....	Charles H. Earle .....	Green Bay, Wis.....	June 8, 1858.
22244	Scales, platform .....	J. F. Keeler.....	Cleveland, Ohio.....	Dec. 7, 1858.
20792	Springs, machine for testing the strength of...	Elnathan Sampson.....	St. Johnsbury, Vt.....	July 6, 1858.
21950	Tackle-block .....	S. H. Hartman .....	Pittsburg, Pa.....	Nov. 2, 1858.
21028	Weighing and registering grain, machine for...	John Ferrier .....	Charlestown, Mass.....	July 27, 1858.
21999	Weighing carts .....	J. Scheitlin .....	Columbia, S. C.....	Nov. 2, 1858.
20513	Weighing-machine, automatic grain .....	James W. Martin, assignor to Lewis Roth- ernel.	Philadelphia, Pa.....	June 8, 1858.
19466	Weighing mechanism applied to the carts of coal dealers and others, construction and arrangement of the.	W. & T. Schnebly .....	Hackensack, N. J.....	Feb. 23, 1858.
19263	Winch, safety .....	John Hartman, jr., assignor to John Hart- man, sr.	Philadelphia, Pa.....	Feb. 2, 1858.
		William Riker.....	Penn Yan, N. Y.....	



## CLASS XIII.—GRINDING-MILLS AND MILL-GEARING, including grain-mills, mechanical movements, horse-power, &amp;c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19735	Belt-coupling .....	Samuel Green, assignor to	Grand Rapids, Mich. ....	Mar. 23, 1858.
19318	Belting, lap-joints for .....	Silas B. Green.....	Rochester, N. Y. ....	Feb. 9, 1858.
21596	Belting-machine.....	Henry Underwood.....	New York, N. Y. ....	Sept. 28, 1858.
20564	Belting, round, manufacture of.....	John H. Cheever .....	New York, N. Y. ....	June 15, 1858.
19272	Belts, shifting.....	Marshall Jewell .....	Hartford, Conn. ....	Feb. 2, 1858.
19892	Bolting, dusting, and separating the ground material, machinery for.....	Morris Wells.....	Brooklyn, N. Y. ....	April 6, 1858.
19024	Bolting flour .....	Joel Woodward.....	Philadelphia, Pa. ....	Jan. 5, 1858.
21277	Bolting flour, machinery for.....	David Geib .....	Mifflintown, Pa. ....	Aug. 24, 1858.
19303	Bolts, flour .....	Benjamin D. Sanders.....	Holliday's Cove, Va. ....	Feb. 9, 1858.
21009	Bran-duster.....	Samuel G. McMurtry.....	West Urbana, Ill. ....	July 27, 1858.
	Cleaning and polishing coffee, apparatus for. (See Class I, letter C.)	S. B. Manning.....	Allegheny, Pa. ....	
21061	Cleaning grain, machine for. (See Class I, letter G.)			
21030	Crank, substitute for the .....	Aaron Brooks .....	Crawford county, Ind. ....	Aug. 3, 1858.
	Crushing and grinding the same, feeding quartz, &c., to machines for.....	C. P. Stanford .....	Mount Gregory, Cal. ....	July 27, 1858.
20601	Dress, hulling-stone.....	John A. Wilson .....	Dover, N. J. ....	June 15, 1858.
22006	Flour-cooler .....	Horace B. Allis.....	Little Rock, Ark. ....	Nov. 9, 1858.
22116	Gearing .....	G. P. Ganster.....	Reading, Pa. ....	Nov. 23, 1858.
22118	Gearing .....	E. A. Goodes .....	Philadelphia, Pa. ....	Nov. 23, 1858.
20672	Gearing for machinery.....	William Webster.....	Jefferson county, W. Ter. ....	June 22, 1858.
21245	Grain, cooling and ventilating, apparatus for.....	Charles D. Clark .....	Chicago, Ill. ....	Aug. 24, 1858.
20422	Grain, machine for cleaning.....	I. G. Goshon and	Mercersburg, Pa. ....	June 1, 1858.
20399	Grain, machine for elevating, measuring, registering, and bagging.....	W. Bowers.....	Chambersburg, Pa. ....	June 1, 1858.
		Peleg Barker.....	North Adams, Mich. ....	
21144	Grain, machine for fanning and assorting.....	R. Nutting.....	Randolph, Vt. ....	Aug. 10, 1858.
22359	Grain, machine for separating garlic from.....	P. C. Fritz .....	Barrytown, N. Y. ....	Dec. 21, 1858.
	Grain-measure. (See Class VIII, letter M.)			

20490	Grain-separator. (See Class I.)	Franklin B. Hunt	Richmond, Va.	June 8, 1858.
19688	Grinding and cutting, machine for	Calvin Dickey	Mercersburg, Pa	Mar. 23, 1858.
20282	Grinding, machine for cutting the leaves from the sugar-cane preparatory to.	Benjamin Mackerley	New Petersburg, Ohio	May 18, 1858.
20279	Grinding, toothed cylinder for	B. F. Love and J. H. Frazee	Shelbyville, Ind	May 18, 1858.
20257	Horse-power	Jeremiah Darling	Cincinnati, Ohio	May 18, 1858.
20461	Horse-power	T. H. and J. E. and J. F. and R. J. Wilson	Athens, Ga.	June 1, 1858.
20421	Horse-power	Micah Gillam	Troy, Pa.	June 1, 1858.
20978	Horse-power	W. Rider, assignor to himself and J. B. Sweetland.	Almont, Mich	July 20, 1858.
21495	Horse-power	Gorges Hely	Rochester, Wis	Sept. 14, 1858.
22079	Horse-power draught	J. H. Jones	Rockton, Ill	Nov. 16, 1858.
22360	Horse-power for driving reciprocating saws	Edward M. Fuller	Salisbury, N. Y.	Dec. 21, 1858.
19976	Horse-power, gearing for	Cyrus Avery	Tunkhannock, Pa	April 20, 1858.
20368	Horse-power, governor for	Lea Pusey	Wilmington, Del	May 25, 1858.
19769	Horse-power machine	James Grant	Rochester, N. Y.	Mar. 30, 1858.
21032	Horse-power machine	James A. Stone	Rochester, N. Y.	July 27, 1858.
19408	Horse-powers, &c., wheel and axle attachment of.	George E. Burt and George F. Wright	Harvard, Mass	Feb. 23, 1858.
21474	Hulling rice. (See Class I, letter H.)	H. H. Thayer, assignor to J. A. Woodbury and S. A. Woods.	Sandwich, Mass	Sept. 7, 1858.
19984	Meal, cooling and drying	John Deuchfield	Oswego, N. Y.	April 20, 1858.
22003	Mechanical movement	Joseph H. Davis	Woburn, Mass	Nov. 2, 1858.
19807	Mill	Joel Woodward	Philadelphia, Pa	Mar. 30, 1858.
19386	Mill-bush	George Strause	Boonsboro' Md	Feb. 16, 1858.
19727	Mill-bush	John Wells	Baltimore, Md	Mar. 23, 1858.
19421	Mill, cider	M. W. Helton	Bloomington, Ind	Feb. 23, 1858.
20220	Mill, cider	Michael Stevens	Lucas, Ohio	May 11, 1858.
21874	Mill, cider	John Eiberweiser	Cincinnati, Ohio	Oct. 26, 1858.
20208	Mill, corn	Charles Leavitt	Cleveland, Ohio	May 11, 1858.
20121	Mill, corn and cob	Benjamin Winter	Buckingham, C. H., Va	April 27, 1858.
19016	Mill, flouring	Edwin Clark	Lancaster, Pa	Jan. 5, 1858.
20329	Mill, flouring	Edwin Clark	Lancaster, Pa	May 25, 1858; ante-dated Feb. 2, 1858.
20370	Mill, flouring	Christopher Rands	Peoria, Ill	May 25, 1858.
20972	Mill, flouring	Samson Wolff	Vicksburg, Miss	July 20, 1858.
21062	Mill, flouring	R. J. Brown	Perry, Pa.	Aug. 3, 1858.



*List of patents for inventions, 1858—CLASS XIII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22384	Mill, flouring.....	Ira Speight.....	Woodville, Miss.....	Dec. 21, 1858.
26784	Mill for cutting, crushing, and expressing the juice from sugar-cane.	J. J. Fearington.....	Pittsborough, N. C.....	July 6, 1858.
20102	Mill for grinding paint.....	Chauncey Thomas.....	West Newbury, Mass.....	April 27, 1858.
19541	Mill for reducing substances.....	Thomas Blanchard.....	Boston, Mass.....	Mar. 9, 1858.
21340	Mill for sugar-cane.....	Jeremiah Howard.....	New York, N. Y.....	Aug. 31, 1858.
20288	Mill for treating Chinese sugar-cane.....	Henry Meyer.....	Bridgeton, N. J.....	May 18, 1858.
19251	Mill, grain.....	James J. Johnston.....	Allegheny, Pa.....	Feb. 2, 1858.
19441	Mill, grain.....	Philander Perry.....	Troy, N. Y.....	Feb. 23, 1858.
19093	Mill, grinding.....	Burton W. Leonard.....	Bridgeport, Conn.....	Jan. 12, 1858.
19289	Mill, grinding.....	H. V. Duryea.....	Fulton, N. Y.....	Feb. 9, 1858.
19521	Mill, grinding.....	Hosea Southwick.....	Little Cooley, Pa.....	Mar. 2, 1858.
19587	Mill, grinding.....	Gelston Sanford.....	Poughkeepsie, N. Y.....	Mar. 9, 1858.
19559	Mill, grinding.....	R. D. Granger.....	Philadelphia, Pa.....	Mar. 9, 1858.
19826	Mill, grinding.....	David E. Breinig.....	Philadelphia, Pa.....	April 6, 1858.
20310	Mill, grinding.....	S. Vascow and A. Guirand.....	Cincinnati, Ohio.....	May 18, 1858.
20692	Mill, grinding.....	B. A. Beardsley.....	Waterville, N. Y.....	June 29, 1858.
20734	Mill, grinding.....	William Scarlett.....	Kenosha, Wis.....	June 29, 1858.
20941	Mill, grinding.....	Gerritt Erskson.....	New York, N. Y.....	July 20, 1858.
19060	Mill, hominy.....	Ezra Fahrney, assignor to John Donaldson.....	Deep River, Iowa.....	Jan. 5, 1858.
19297	Mill, hominy.....	Philip Homrighaus.....	Royalton, Ohio.....	Feb. 9, 1858.
19691	Mill, hominy.....	T. E. Dake and J. W. Teal.....	Indianapolis, Ind.....	Mar. 23, 1858.
20327	Mill, hominy.....	James M. Clark.....	Lancaster, Pa.....	May 25, 1858.
21184	Mill pick-holder.....	J. P. Brady.....	Mount Joy, Pa.....	Aug. 17, 1858.
19696	Mill, pug, grinding attachment to.....	D. H. Gage.....	Dover, N. H.....	Mar. 23, 1858.
20012	Mill, quartz.....	L. W. Williams.....	Nevada City, Cal.....	April 20, 1858.
20161	Mill, smut.....	J. C. Kelly and A. Frost.....	Edinburg, Ind.....	May 4, 1858.
21199	Mill-spindles, mode of securing and adjusting the steps of.	Gideon Hotchkiss.....	Windsor, N. Y.....	Aug. 17, 1858.
20083	Mill-stone dress.....	Gabriel Natcher.....	Indianapolis, Ind.....	April 27, 1858.
20084	Mill-stone dress.....	Gabriel Natcher.....	Indianapolis, Ind.....	April 27, 1858.
20029	Mill-stone dress.....	Franklin Bellingher.....	Lockport, N. Y.....	April 27, 1858.

20462	Mill-stone dress.....	Samson Wolff.....	Vicksburg, Miss.....	June 1, 1858.
20950	Mill-stone dress.....	G. W. Loy.....	Jefferson, Texas.....	July 20, 1858.
22356	Mill stones, balancing.....	John Fairclough.....	Louisville, Ky. ....	Dec. 21, 1858.
19273	Mill stones, dressing.....	Isaac Whisen.....	Mount Jackson, Va.....	Feb. 2, 1858.
19156	Mill-stones, feeding.....	Winser Smith.....	Princeton, Iowa.....	Jan. 19, 1858.
21330	Mill-stones, hanging.....	J. A. Forsman.....	Cincinnati, Ohio.....	Aug. 31, 1858.
20818	Mill-stones, ventilating.....	L. Racine.....	Joliet, Ill.....	July 6, 1858.
20124	Mill, sugar.....	Frederick E. Dake, assignor to himself and Thomas E. Hunt.....	Indianapolis, Indiana.....	April 27, 1858.
21601	Mill, sugar.....	Samuel L. Denney.....	Lancaster county, Pa.....	Sept. 28, 1858.
19545	Mill, sugar and cider.....	Hamilton J. Cox.....	Warren county, Ohio.....	Mar. 9, 1858.
20290	Mills, chasing.....	Charles Moore.....	Trenton, N. J.....	May 18, 1858.
20540	Mills, grist, machine for gathering the toll in.....	Joseph Bartholomew.....	Dundee, N. Y.....	June 15, 1858.
19605	Mills, hulling, dress of stones for.....	D. Collins, assignor to himself and W. L. Hanford.....	Jersey City, N. J.....	Mar. 9, 1858.
19302	Mills, scrapers for grinding.....	Thomas E. Little.....	Janesville, Wis.....	Feb. 9, 1858.
20384	Motion, changing rotary into reciprocating.....	S. L. Wiegand.....	Philadelphia, Pa.....	May 25, 1858.
19849	Motion, converting reciprocating into rotary.....	Forest H. Harwood.....	Rushville, N. Y.....	April 6, 1858.
21065	Motion, converting reciprocating into rotary.....	Isaac Chapman.....	New York, N. Y.....	Aug. 3, 1858.
20980	Motion, converting rotary into reciprocating.....	J. J. Weeks, assignor to Susan Weeks.....	Locust Valley, N. Y.....	July 20, 1858.
19726	Motion, reciprocating and rotary.....	Isaac Van Doren.....	Somerville, N. J.....	Mar. 23, 1858.
19586	Motion, reciprocating, mode of producing vertical and horizontal.....	Matthias Steigers.....	St. Louis, Mo.....	Mar. 9, 1858.
22445	Motion, rotary, device for transmitting.....	Henry Morris.....	West Philadelphia, Pa.....	Dec. 28, 1858.
21934	Motion, rotary, mechanism for transmitting.....	Gerard Bancker and A. Campbell.....	New York, N. Y.....	Nov. 2, 1858.
21133	Motive-power, apparatus for heating and cooling air to be used as a.....	W. Hidden and J. Reeves.....	New York, N. Y.....	Aug. 10, 1858.
20701	Motive-power, mode of obtaining.....	Peter Daniel, deceased.....	Franklin county, Ky.....	June 29, 1858.
19183	Power, machinery for obtaining and preserving, from trains while passing railway stations.....	John F. Dunnington, administrator.....	Washington, D. C.....	Jan. 26, 1858.
21611	Powers, mechanical.....	Erastus T. Bussell.....	Shelbyville, Indiana.....	Sept. 28, 1858.
20881	Pulleys, machine.....	Elisha Matteson.....	Troy, N. Y.....	July 13, 1858.
21156	Rice, machine for pounding.....	Caleb S. Hunt.....	Bridgewater, Mass.....	Aug. 10, 1858.
21913	Rice, machinery for pearling, polishing, and finishing.....	John T. Tallon.....	New Orleans, La.....	Oct. 26, 1858.
22337	Rice, mode of cleaning.....	R. P. Walker.....	New York, N. Y.....	Dec. 21, 1858.
19637	Separator and cleaner, grain.....	Wilson Ager.....	Rohrsburg, Penn.....	Mar. 16, 1858.
		S. Howes, and.....	Silver Creek, N. Y.....	
		G. E. Throop.....	Chicago, Ill.....	



*List of patents for inventions, 1858—Class XIII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19629	Separator and smut-machine ----- Separator, grain. (See Class I, letter G.) Separator, wheat. (See Class I, letter W.)	Daniel M. Donehoo -----	Hookstown, Penn. -----	Mar. 16, 1858.
20566	Shafting, adjustable hanger for. -----	William Johnson -----	Lambertville, N. J. -----	June 15, 1858.
20634	Shafting, coupling-box for. -----	W. B. Dunning -----	Geneva, N. Y. -----	June 22, 1858.
21640	Shafting, hangers and boxes for -----	Frederick W. Howe, assignor to the New- ark Machine Company.	Newark, N. J. -----	Sept. 28, 1858.
19340	Shafting, hangers for. -----	William B. Bement -----	Philadelphia, Penn. -----	Feb. 16, 1858.
20800	Shafts without using a crank, rotating -----	Simon Ingersoll -----	Greenwich, Conn. -----	July 6, 1858.
20104	Smut and grain-cleaning machine -----	Jeremiah Tobin -----	Newark, N. J. -----	April 27, 1858.
19860	Smut-machine -----	Samuel B. Manning -----	Allegheny, Penn. -----	April 6, 1858.
20420	Smut-machine -----	John German, jr., and -----	Smithfield, Mich. -----	June 1, 1858.
20521	Smut-machine -----	S. R. Perkins -----	Pontiac, Mich. -----	June 8, 1858.
21202	Smut-machine -----	D. M. Vance -----	Urbana, Ohio -----	Aug. 17, 1858.
21563	Smut-machine -----	J. N. Lester -----	Oswego, N. Y. -----	Sept. 21, 1858.
22128	Smut-machine -----	Hiram Hopkins -----	Evansville, Ia. -----	Nov. 23, 1858.
22395	Smut-machine -----	Hugh Marshman and C. F. Foulke -----	Carlisle, Iowa -----	Dec. 21, 1858.
20683	Stuffing-boxes -----	J. A. Woodward -----	Burlington, Iowa -----	June 22, 1858.
		H. F. Read, assignor to himself and Samuel J. Burr.	Brooklyn, N. Y. -----	
21139	Wheat, cleaning, machine for -----	J. Lantz and J. Russell -----	Wheeling, Va. -----	Aug. 10, 1858.
20318	Wheels, drawing, for portable steam engines and agricultural implements, &c.	G. W. Barnett -----	Springfield, Ohio -----	May 25, 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22195	Auger for wood.	Martin Norris.	Broad Brook, Conn.	Nov. 30, 1858.
22394	Auger shanks, method of attaching cutting-lips to	Norman S. White and Aaron Denio.	Shaftsbury, Vt.	Dec. 21, 1858.
21179	Augers, method of securing the centre of the spindles of.	Charles L. Barnes.	New York, N. Y.	Aug. 17, 1858.
19829	Augers, &c., method of attaching expansible cutting lips to.	N. Clare and J. Quigley.	Malden, N. Y.	April 6, 1858.
20261	Barrel-head machine.	Benjamin Fitch.	Mooers, N. Y.	May 18, 1858.
19066	Barrel-head machinery, circular cutting, method of connecting the beveling knives in.	William Bevard.	Muscataine, Iowa.	Jan. 12, 1858.
19509	Barrel-heads, machine for cutting.	William Manning.	Rouse's Point, N. Y.	Mar. 2, 1858.
19510	Barrel-heads, machine for cutting.	James H. Mattison.	Scriba, N. Y.	Mar. 2, 1858.
20864	Barrel-heads, machine for cutting.	A. H. Crozier.	Oswego, N. Y.	July 13, 1858.
20962	Barrel-heads, machine for cutting both bevels simultaneously on.	A. D. Stewart.	Bennington, Vt.	July 20, 1858.
21117	Barrels, machine for chamfering and crozing.	A. H. Crozier and C. Carrier.	Oswego, N. Y.	Aug. 10, 1858.
21769	Barrels, machine for chamfering and crozing.	James H. Mattison.	Scriba, N. Y.	Oct. 12, 1858.
21718	Barrels, machine for crozing, chamfering, and beveling.	William M. Arnall, assignor to himself, O. P. Smith, and A. C. Jordan.	Sperryville, Va.	Oct. 5, 1858.
21725	Barrels, &c., machine for forming.	Jacob Rees, assignor to Jonah L. Rees.	Elk Horn, Ill.	Oct. 5, 1858.
19595	Bench-hook.	E. B. White.	Nashua, N. H.	Mar. 9, 1858.
21351	Bending felloes, machine for.	John L. Mann.	Ravenna, Ohio.	Aug. 31, 1858.
19480	Bending shovel-handles, method of.	Thomas Blanchard.	Boston, Mass.	Mar. 2, 1858.
22474	Bit, expanding.	Harley Stone, assignor to P. P. Todd.	Blackstone, Mass.	Dec. 28, 1858.
21597	Bit, expansive.	William A. Clark.	Bethany, Conn.	Sept. 28, 1858.
19028	Bit-holder.	B. B. Hill and S. W. Adams.	Chicopee, Mass.	Jan. 5, 1858.
20010	Bit-holder.	David H. Whittemore.	Worcester, Mass.	April 20, 1858.
21160	Bit, variable boring.	William Tucker.	Gloucester, R. I.	Aug. 10, 1858.
20192	Bits, expansive, method of seating the movable cutter in.	W. A. Clark.	Bethany, Conn.	May 11, 1858.

Boards, machine for measuring the superficies  
of. (See Class VIII, letter M.)



*List of patents for inventions, 1858—CLASS XIV.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20779	Boring-machine.	L. A. Dole	Salem, Ohio.	July 6, 1858.
22379	Boring wood, machine for.	George F. Rice.	Worcester, Mass.	Dec. 21, 1858.
20495	Brace, device for attaching bits to the.	Samuel U. King.	Windsor, Vt.	June 8, 1858.
22101	Bungs, machine for cutting	James Lyon and George H. Brady, assigns to themselves and Thomas J. Falls, jr.	New York, N. Y.	Nov. 16, 1858.
19700	Carpenters' brackets, &c. Holding-bolt for, carpenters' rules. (See Class VIII, letter R.)	John W. Kennedy	Plainfield, Conn.	Mar. 23, 1858.
21247	Carpenters' work-bench	Justin Devoe.	Randolph, Pa.	Aug. 24, 1858.
20918	Chair-backs, machine for manufacturing	S. E. Foster, assignor to the Walter Hey- wood Chair Company.	Fitchburg, Mass.	July 13, 1858.
20913	Clamp, floor	H. C. Wight	Worcester, Mass.	July 13, 1858.
19982	Cutters, rotary, sharpening device for.	Edward Conroy.	Boston, Mass.	April 20, 1858.
19035	Dovetailing rotary cutters in their heads, method of.	G. H. Mallory	New York, N. Y.	Jan. 5, 1858.
19406	Dovetailing tool	G. W. Billings	Cleveland, Ohio	Feb. 23, 1858.
21503	Dovetails, machine for cutting	T. E. and Alexander, and Edwin King	Cherry Valley, Ohio	Sept. 14, 1858.
22369	Hoop-lock.	Edwin A. Jefferey.	Corning, N. Y.	Dec. 2, 1858.
21507	Hoops, machine for notching and trimming.	Sanford Littlefield	West Troy, N. Y.	Sept. 14, 1858.
21508	Hoops, wooden, machine for cutting and finish- ing the locks of.	Hiram Littlejohn	Troy, N. Y.	Sept. 14, 1858.
20345	Irregular forms, cutter-head and table-rest for cutting.	J. P. Grosvenor	Lowell, Mass.	May 25, 1858.
20505	Irregular forms, machine for cutting.	W. N. Oakes	Dana, Mass.	June 8, 1858.
21379	Irregular forms, machine for cutting.	H. D. Stover	Boston, Mass.	Aug. 31, 1858.
22302	Irregular forms, machine for cutting.	Z. F. Nance	Richmond, Va.	Dec. 14, 1858.
21861	Joiner's squares, device for adjusting to a right angle the.	Linus Yale, jr.	Philadelphia, Pa.	Oct. 19, 1858.
22058	Lath-machine	Josiah Black	Memphis, Tenn.	Nov. 16, 1858.
22449	Lath-machine	Jacob Pefley	Bainbridge, Ind.	Dec. 28, 1858.
21675	Lath, machine for cutting	Reuben Haynes	Oberlin, Ohio	Oct. 5, 1858.
20292	Lath-machines, method of feeding the bolt in.	James Nevison	Morgan, Ohio	May 18, 1858.
20323	Lathe.	J. T. Bunce	East Haddam, Conn.	May 25, 1858.



20166	Lathe, automatic Lathe, burnishing attachment for. (See Class II, letter B.) Lathe, chuck for.....	John McNary ..... S. Goodfellow, assignor to himself and John Fish. Nathan N. Phillips..... Frederick Baldwin..... Peter H. Niles..... J. and W., and G. Gardner ..... A. N. Wilcox..... Albin Warth ..... Daniel White, jr..... William D. Sloan ..... Adam Rennie..... E. H. Titus and..... John Sharp .....	Brooklyn, N. Y..... Troy, N. Y..... New York, N. Y..... South Wardsboro', Vt..... Boston, Mass..... New York, N. Y..... Watervliet, N. Y..... Stapleton, N. Y..... Lowell, Mass..... New York, N. Y..... Binghamton, N. Y..... Wilkesbarre, Pa..... } Phillipsburgh, Pa..... }	May 4, 1858. Aug. 17, 1858. May 18, 1858. Aug. 24, 1858. Dec. 28, 1858. June 29, 1858. Jan. 5, 1858. Nov. 9, 1858. Feb. 16, 1858. Jan. 5, 1858. July 20, 1858. June 29, 1858. Dec. 21, 1858. Aug. 17, 1858. Nov. 30, 1858. Oct. 12, 1858. Mar. 2, 1858. July 6, 1858. June 8, 1858. Jan. 19, 1858. Mar. 9, 1858. Feb. 16, 1858. June 22, 1858. Mar. 16, 1858. Aug. 31, 1858. Mar. 16, 1858. Oct. 12, 1858. Sept. 28, 1858. June 8, 1858. Mar. 23, 1858.
21232				
20298	Lathe-dog.....			
21240	Lathe for turning beaded work.....			
22447	Lathe for turning masts, &c.....			
20705	Lathe for turning oval frames.....			
19056	Lathe for turning wood.....			
22043	Lathe for turning wood.....			
19395	Lathe, rest attachment for.....			
19051	Lathe, turning.....			
20956	Lathe, turning, method of feeding the tool-carriage in. }			
20745	Lumber, machine for resawing .....			
22386	Mitre-box .....			
21194	Mitres, machine for cutting.....			
22222	Mortises, dovetails, machine for cutting.....			
21783	Mortising-machines, mode of reversing the chisel in.	Asa F. Tarr ..... S. W. Hall..... Solander Withington..... Frederick Stamm .....	Rockport, Mass..... Williamsport, Pa..... St. Louis, Mo..... Lancaster, Pa.....	Dec. 21, 1858. Aug. 17, 1858. Nov. 30, 1858. Oct. 12, 1858.
19492	Moulding for sash, machine for cutting the....	O. K. Collins.....	Murfreesboro', Tenn.....	Mar. 2, 1858.
20824	Mouldings, arrangement of devices for planing-Plane, bench .....	W. B. Smith..... H. Lee Kendall .....	Lowell, Mass..... Baltimore, Md.....	July 6, 1858. June 8, 1858.
20493	Plane, crozing .....	S. G. Crane.....	Rochester, N. Y.....	Jan. 19, 1858.
19130	Plane, floor.....	Charles E. Barlow.....	Philadelphia, Pa.....	Mar. 9, 1858.
19539	Plane-iron to its stock, method of securing the-Plane-irons, device for adjusting.....	P. A. Gladwin .....	Boston, Mass.....	Feb. 16, 1858.
20615	Plane-irons, device for adjusting.....	Leonard Bailey.....	Winchester, Mass.....	June 22, 1858.
19620	Plane, joiner's beveling.....	T. A. Chandler.....	Rockport, Ill.....	Mar. 16, 1858.
21311	Plane, bench, method of securing plane-irons to the stocks of.	Leonard Bailey.....	Winchester, Mass.....	Aug. 31, 1858.
19619	Planing blind slats, machine for.....	Charles Carlisle and Leonard Worcester---	Woodstock, Vt.....	Mar. 16, 1858.
21782	Planing-cutter, rotary.....	John Sperry.....	New York, N. Y.....	Oct. 12, 1858.
21618	Planing irregular surfaces, machine for.....	J. H. Nelson.....	Oskaloosa, Iowa.....	Sept. 28, 1858.
20527	Planing-machine.....	James A. Woodbury .....	Winchester, Mass.....	June 8, 1858.
19702	Planing-machines, method of clamping polygonal pieces in.	Joseph W. Killam .....	East Wilton, N. H.....	Mar. 23, 1858.



*List of patents for inventions, 1858—CLASS XIV.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20762	Planing-machines, rotary, device for securing cutters in.	S. F. Forman, assignor to Henry Z. Drew.	New York, N. Y.	June 29, 1858.
20999	Planing-machines, rotary, stock for holding the cutters in.	Ivers Gibbs	Worcester, Mass.	July 27, 1858.
21720	Planing wood, machine for	C. B. Cottrell, assignor to himself and Nathan Babcock.	Westerly, R. I.	Oct. 5, 1858.
19110	Plumb and level indicator, attaching the plumb line to a. (See Class VIII.)	Geo. S. Colburn, assignor to Cyrus Wakefield.	South Reading, Mass.	Jan. 12, 1858.
19454	Ratan-machine, device for retaining in proper position the splitting knife in.	Charles Strong	Hartford, Vt.	Feb. 23, 1858.
21588	Saw-filing machine. (See Class II.)	John Pemberton, deceased, Lemuel Pemberton, administrator of.	Jonesboro', Ind.	Sept. 21, 1858.
22268	Saw-mill	Samuel R. Smith and Philander P. Lane, assignors to Lane & Bodley.	Cincinnati, Ohio	Dec. 7, 1858.
20910	Saw-mill block	Hiram Wells	Florence, Mass.	July 13, 1858.
20660	Saw-mills, method for clamping and laterally feeding the log in.	J. C. Past	Wilmington, Del.	June 22, 1858.
20147	Sawing, cross-cut, feeding device for	Jeremiah Darling	Cincinnati, Ohio	May 4, 1858.
19099	Sawing, cross-cut, horse-power machine for	Ezra and John Z. Perin	Connellsville, Ind.	Jan. 12, 1858.
19128	Sawing lumber, device for adjusting two circular saws to the same plane in.	Edwin P. Cavett.	St. Louis, Mo.	Jan. 19, 1858.
19145	Sawing machine	John Mays	Yazoo City, Miss.	Jan. 19, 1858.
19536	Sawing-machine	Thomas J. Alexander	Westerville, Ohio	Mar. 9, 1858.
19644	Sawing-machine	H. H. Low	Galena, Ill.	Mar. 16, 1858.
19906	Sawing-machine	John L. Beadle	Marengo, N. Y.	April 13, 1858.
20184	Sawing-machine	H. S. Vrooman, assignor to Henry Albro.	New York, N. Y.	May 4, 1858.
20870	Sawing-machine	H. Featherstone and P. Engmann	Covington, Ky.	July 13, 1858.
20995	Sawing-machine	W. H. Doane and C. Mason	New Orleans, La.	July 27, 1858.
20886	Sawing-machine, carriage for	A. C. Miller	Chicago, Ill.	July 13, 1858.
			Morgantown, Va.	July 13, 1858.

19801	Sawing-machine, cross-cut	George Telford	Pike, N. Y.	Mar. 30, 1858.
19870	Sawing-machine, cross-cut	H. H. Potter	Carthage, N. Y.	April 6, 1858.
19983	Sawing-machine, cross cut	R. M. Cosby	Indianapolis, Ind	April 20, 1858.
21177	Sawing-machine, cross-cut	John T. Armstrong	Jacksontown, Ohio	Aug. 17, 1858.
21256	Sawing-machine, cross cut	Albert Heth and Gaylon Hall	Adams Centre, N. Y.	Aug. 24, 1858.
21482	Sawing-machine, endless sectional	Harvey Brown	New York, N. Y.	Sept. 14, 1858.
21200	Sawing-machine, reciprocating, for sawing plank.	William C. Huntington	Newark, N. J.	Aug. 17, 1858.
20696	Sawing-machine, rotary	Harvey Brown	New York, N. Y.	June 29, 1858.
19168	Sawing-machine, scroll	Ulysses B. Vidal	Philadelphia, Pa.	Jan. 19, 1858.
20900	Sawing-machine, scroll	E. Sirret, jr.	Buffalo, N. Y.	July 13, 1858.
19166	Sawing-machines, circular, arrangement of devices to feed and gig back the carriage in.	Hiram Wells	Florence, Mass	Jan. 19, 1858.
20150	Sawing-machines, circular, device for governing lateral motion of carriage in gigging back in.	William M. Ferry, jr.	Ferrysburgh, Mich	May 4, 1858.
21345	Sawing-machines, circular, method of attaching the spreader to saws of.	William D. Leavitt	Cincinnati, Ohio	Aug. 31, 1858.
22107	Sawing-machines, felloe, device for clamping and feeding the bolt in.	Derwin E. Butler	Chesterfield, Ohio	Nov. 23, 1858.
19774	Sawing-mill	William Hawkins and William C. Clary	Milwaukie, Wis	Mar. 30, 1858; reissued May 11, 1858.
21838	Sawing. re, machine	William D. Leavitt	Cincinnati, Ohio	Oct. 19, 1858.
19692	Sawing staves, machine for	Harry H. Everts	Chicago, Ill	Mar. 23, 1858.
20135	Saws, band, device for sheltering from dust the lower carrying pulley of.	James Balla	Richmond, Ind	May 4, 1858.
21651	Saws, circular, deflecting plates for	J. D. C. Carpenter	Cincinnati, Ohio	Oct. 5, 1858.
22252	Saws, circular, guard for	Reuben S. Janes	Bethel, Vt	Dec. 7, 1858.
19978	Saws, dressing	Job Batchelor	Camden, N. Y.	April 20, 1858.
20313	Saws, hand, devices attached to, for squaring and marking.	H. Smith, assignor to H. Disston	Camden, N. J.	May 18, 1858.
20337	Saws, hand, leveling device attached to Saws, machine for grinding. (See Class II.) Saws, reciprocating, horse-power for driving. (See Class XIII, letter H.)	H. Disston and T. L. Morss	Philadelphia, Pa.	May 25, 1858.
19300	Saws, reciprocating, method of straining	G. P. Ketcham, jr	Bloomington, Ind	Feb. 9, 1858.
19893	Saws, reciprocating scroll, method of guiding	J. C. Clime, assignor to himself and S. Rhodes.	Philadelphia, Pa	April 6, 1858.
19534	Saws, scroll, method of operating	Henry F. Shaw, assignor to himself and Moses H. Gragg.	Boston, Mass	Mar. 2, 1858.



## List of patents for inventions, 1858—CLASS XIV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19033	Shingle-machine.....	Robert Law .....	Portage City, Wis.....	Jan. 5, 1858.
19136	Shingle-machine.....	George Darby and J. E. Young.....	Augusta, Me .....	Jan. 19, 1858.
19199	Shingle-machine.....	Elijah Morgan .....	Morgantown, Va.....	Jan. 26, 1858.
19233	Shingle-machine.....	David M. Boyd.....	Indianapolis, Ind .....	Feb. 2, 1858.
19293	Shingle-machine.....	William Gregor .....	New York, N. Y.....	Feb. 9, 1858.
19349	Shingle-machine.....	George Craine.....	Fairfield, Iowa.....	Feb. 16, 1858.
20638	Shingle-machine.....	J. R. Hall.....	Brunswick, Me .....	June 22, 1858.
20876	Shingle-machine.....	E. Hall and J. F. Stewart .....	East Randolph, N. Y.....	July 13, 1858.
21490	Shingle-machine.....	Augustus Day .....	Detroit, Mich.....	Sept. 14, 1858.
21744	Shingle-machine, circular sawing .....	Jonathan Creager .....	Cincinnati, Ohio.....	Oct. 12, 1858.
20704	Shingle-machine, rotary.....	K. Freeman.....	Fond du Lac, Wis.....	June 29, 1858.
20174	Shingle-machines, device by which the width of the bolt checks the feed in.	A. C. Sawyer.....	Canton, N. Y.....	May 4, 1858.
20501	Shingle-machines, device for operating the bolt to obtain taper in.	Elijah Morgan.....	Morgantown, Va. ....	June 8, 1858.
19193	Shingle-machines, device for shifting the bolt to effect the taper in.	W. D. Guseman .....	Morgantown, Va. ....	Jan. 26, 1858.
20553	Shingle-machines, device in feed-motion of....	Elbridge Drake.....	Gardiner, Me.....	June 15, 1858.
19275	Shingle-machines, method of feeding the bolt in	Twentymen Wood .....	Greenwich, Conn.....	Feb. 2, 1858.
22350	Shingles.....	Henry T. Clay.....	Gardiner, Me.....	Dec. 21, 1858.
21453	Shingles from the log, method of manufacturing.	C. L. Story.....	Owensboro', Ky.....	Sept. 7, 1858.
22083	Shingles, machine for sawing and planing.....	G. H. Mallory.....	New York, N. Y.....	Nov. 16, 1858.
19167	Shingles, method of butting and pointing the bolt to be sawed into.	M. D. and A. Wells.....	Morganton, Va.....	Jan. 19, 1858.
21886	Spoke-machine.....	Luke L. Knight and D. H. Rice.....	Barre, Mass.....	Oct. 26, 1858.
20459	Spoke shave .....	C. H. Weston .....	Nashua, N. H.....	June 1, 1858.
20855	Spoke-shave .....	Leonard Bailey .....	Winchester, Mass.....	July 13, 1858.
20642	Spokes in hubs, machine for setting .....	A. Hafer and G. Wilkinson .....	Colon, Mich.....	June 22, 1858.
21830	Stave-jointer .....	William Halderman.....	Freeport, Ill.....	Oct 19, 1858.
19064	Stave-machine.....	L. B. Averill .....	Barre, Vt.....	Jan. 12, 1858.



19308	Stave-machine.....	E. Moore, William Clark, and James Lindsey.	Shelbyville, Ind.....	Feb. 9, 1858.
19444	Stave-machine.....	William Robinson.....	Augusta, Ga.....	Feb. 23, 1858.
20737	Stave-machine.....	W. M. Sloane.....	Buffalo, N. Y.....	June 29, 1858.
19853	Stave-machines, method of holding and feeding the bolt in.	Abraham Hupp.....	Lancaster, Ohio.....	April 6, 1858.
21856	Staves from the bolt, machine for cutting.....	William Steele.....	Wheeling, Va.....	Oct. 19, 1858.
22231	Staves from the bolt, machine for cutting.....	Isaac W. Forbes.....	Jefferson, Wis.....	Dec. 7, 1858.
19760	Staves, rotary reciprocating knives for smoothing.	William B. Dunning.....	Geneva, N. Y.....	Mar. 30, 1858.
21512	Tenoning-machine.....	John McCreary.....	Delaware, Ohio.....	Sept. 14, 1858.
19292	Tenons on spokes, machine for cutting.....	Mahlon Gregg.....	Philadelphia, Pa.....	Feb. 9, 1858.
19806	Tonguing and grooving, rotary cutters for.....	James A. Woodbury.....	Winchester, Mass.....	Mar. 30, 1858.
20866	Tool for cutting cylindrical or tapering sticks..	George Davies.....	Duquesne, Pa.....	July 13, 1858.
22430	Tool for slotting clothes-pins.....	John Humphrey.....	Keene, N. H.....	Dec. 28, 1858.
20693	Tool-handle, socket for.....	William Bennett.....	New York, N. Y.....	June 29, 1858.
22167	Turning hubs, arrangement of cutters for.....	George Cooper.....	Berlin, Wis.....	Nov. 30, 1858.
21443	Turning hubs, machine for.....	Alexander Rickart.....	Schoharie, N. Y.....	Sept. 7, 1858.
20344	Turning irregular forms, machine for.....	N. J. Glover.....	Waveland, Ind.....	May 25, 1858.
22400	Turning tapering twists on wood, machine for..	Reuben K. Huntton, assignor to himself and Jacob B. Rand.	Concord, N. H.....	Dec. 21, 1858.
19711	Turning tool-handles, &c., machine for.....	Hiram Plumb.....	Honesdale, Pa.....	Mar. 23, 1858.
21590	Veneers, machine for cutting.....	Gilbert Bishop.....	Fairfield, Conn.....	Sept. 21, 1858.
19243	Wheelwright's-machine.....	Assignor to Edward White.....	New York, N. Y.....	Feb. 2, 1858.
19928	Wheelwright's-machine.....	Nathaniel T. Edson.....	New Orleans, La.....	April 13, 1858.
21002	Wheelwright's-machine.....	Samuel Holl.....	Reading, Pa.....	July 27, 1858.
22193	Wood, angular pieces of, machine for cutting curvilinear surfaces on.	William Hinds.....	Otsego, N. Y.....	Nov. 30, 1858.
19307	Wood, clamp for holding rectangular pieces of, while being bored, tapped, &c.	George Muller.....	Sacramento, Cal.....	Feb. 9, 1858.
20137	Wood, machine for bending.....	Henry Miller.....	Grafton, Va.....	May 4, 1858.
19867	Wood, machine for splitting.....	Thomas Blanchard.....	Boston, Mass.....	April 6, 1858.
19538	Wood of unequal lengths at once, method of bending several pieces of.	Franz Noette.....	Brooklyn, N. Y.....	Mar. 9, 1858.
20016	Wooden dowel-pins, machine for making.....	Heman A. Barnard.....	Moline, Ill.....	April 20, 1858.
21961	Wooden screws, die for cutting.....	Amos H. Boyd, assignor to Samuel F. Chase.	Saco, Me.....	Nov. 2, 1858.
21960	Wooden screws, tap for cutting.....	W. O. Hickock.....	Harrisburg, Pa.....	Nov. 2, 1858.
		W. O. Hickock.....	Harri.burg, Pa.....	



CLASS XV.—STONE AND CLAY MANUFACTURES, including machines for pottery, glass-making, brick-making, dressing and preparing stone, cements, and other building materials.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22129	Bottles, moulds for making-----	John L. Mason-----	New York, N. Y.-----	Nov. 23, 1858.
21831	Bottles, Screw-neck. (See Class XXII, letter B ) Bottles, &c., apparatus for making glass stop- pers for.	Thomas R. Hartell-----	Philadelphia, Pa.-----	Oct. 19, 1858.
21744	Brick, fire, manufacture of-----	J. Ostrander and J. S. Heartt-----	Troy, N. Y.-----	Oct. 12, 1858.
20146	Brick-kiln-----	John W. Crary-----	New Orleans, La.-----	May 4, 1858.
19236	Brick-machine-----	Charles Connell-----	Philadelphia, Pa.-----	Feb. 2, 1858.
19366	Brick-machine-----	George O. Houck and Henry Gore-----	Springfield, Ohio-----	Feb. 16, 1858.
19470	Brick-machine-----	Daniel Lombard, assignor to himself and George F. Richardson.	Boston, Mass.-----	Feb. 23, 1858.
19792	Brick-machine-----	J. L. Ransom-----	Charleston, S. C.-----	Mar. 30, 1858.
20109	Brick-machine-----	J. Z. A. Wagner-----	Philadelphia, Pa.-----	April 27, 1858.
20107	Brick-machine-----	Stephen Ustick-----	Philadelphia, Pa.-----	April 27, 1858.
20594	Brick-machine-----	George L. Smull-----	Meadville, Pa.-----	June 15, 1858.
20536	Brick-machine-----	Gerard Bancker-----	New York, N. Y.-----	June 15, 1858.
20612	Brick-machine-----	Francis Allen-----	Boston, Mass.-----	June 22, 1858.
21025	Brick-machine-----	S. C. Salisbury-----	Milwaukie, Wis.-----	July 27, 1858.
21186	Brick-machine-----	John W. Crary-----	New Orleans, La.-----	Aug. 17, 1858.
21458	Brick-machine-----	Henry White-----	Cleveland, Ohio-----	Sept. 7, 1858.
21545	Brick-machine-----	John Booth-----	Mobile, Ala.-----	Sept. 21, 1858.
21888	Brick-machine-----	John Kuts-----	Philadelphia, Pa.-----	Oct. 26, 1858.
21876	Brick-machine-----	Thomas Forbes-----	Kansas City, Mo.-----	Oct. 26, 1858.
20433	Brick, manufacture of-----	Thomas James-----	Canton, Md.-----	June 1, 1858.
19309	Brick, mode of burning-----	A. J. Mullen and Robert Hall-----	Greensboro', Ala.-----	Feb. 9, 1858.
22119	Brick-mould----- Cements, water-proof. (See Class IV, letter C.)	James A. Hamer-----	Reading, Pa.-----	Nov. 23, 1858.
21419	Clay, machine for moulding-----	Thomas Hoadley-----	Cleveland, Ohio-----	Sept. 7, 1858.
21506	Clay, machine for working-----	Henry Leguay-----	St Louis, Mo.-----	Sept. 14, 1858.
22450	Cores for moulding plastic substances----- Earthenware dishes. (See Class XVII, letter D )	James Pilgrim-----	New Britain, Conn.-----	Dec. 28, 1858.

22091	Glass-bottles, mould for	S. S. Shinn	Nov. 26, 1858.
22393	Glass furnaces and pots, manufacture of	Ezra Wells	Dec. 21, 1858.
19569	Glass, machinery for polishing	Alexander Lindsay	Mar. 9, 1858.
19023	Kiln, lime	H. R. Fell	Jan. 5, 1858.
19525	Kiln, lime	Abner B. Weeks	Mar. 2, 1858.
20015	Kiln, lime	Bernard Zwart	April 20, 1858.
20549	Kiln, lime	G. W. Calkins and H. White	June 15, 1858.
22239	Kiln, lime	Clark D. Page	Dec. 7, 1858.
	Lime, furnace for burning. (See Class V, letter F.)		
20458	Marble, machine for working	Caleb Warner	June 1, 1858.
21622	Marble, stone, &c., machine for sawing	James Norman and Aaron R. McLean	Sept. 28, 1858.
19194	Pug-mill	James A. Hamer	Jan. 26, 1858.
	Pug-mills, grinding attachment to. (See Class XIII, letter M.)		
19407	Stone-dressing machine	Elijah Brady	Feb. 23, 1858.
22113	Stone for ballasting railroads and turnpikes, machine for breaking.	A. C. Ellithorpe and Ives Scoville	Nov. 23, 1858.
21539	Stone holding machine	Elenzer B. Knight, assignor to himself and Nathan Kellogg.	Sept. 14, 1858.
20542	Stone, machine for crushing	Eli W. Blake	June 15, 1858.
21742	Stone, machine for dressing,	William Cooper	Oct. 12, 1858.
20885	Stone, machine for drilling and splitting	John H. Lyon	July 13, 1858.
20981	Stone sawing-machine	H. L. Arnold	July 27, 1858.
	Stones, machine for gathering. (See Class I.)		

CLASS XVI.—LEATHER, including tanning and dressing, manufacture of boots, shoes, saddlery, harness, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20434	Back-band strap, self-adjusting and vibrating	R. Jancovins	Newark, N. J.	June 1, 1858.
22102	Boot and shoe soles, instrument for trimming the edges of.	Isaac Rich, assignor to S. C. Arnold	Manchester, Conn.	Nov. 16, 1858.
22095	Boot and shoe soles, machine for moulding	Daniel J. Tap ey	Danver's Centre, Mass.	Nov. 16, 1858.



*List of patents for inventions, 1858.—CLASS XVI.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20992	Boot-fronts, method of cutting-----	John Dick-----	New York, N. Y.-----	July 27, 1858.
19227	Boot jack. (See Class XVII) -----	Leonard J. Worden, assignor to himself and Edwin L. Swartwout.-----	Utica, N. Y.-----	Jan. 26, 1858.
22205	Boot-soles, crimping-----	Bradford and Lorenzo Stevens-----	Stoughton, Mass-----	Nov. 30, 1858.
19912	Boot-tops, circular, machine for turning the edges of.-----	Perez C. Clapp-----	Stoughton, Mass-----	April 13, 1858.
19508	Boot-tree-----	Reuben L. Lewis-----	Milford, Mass-----	Mar. 2, 1858.
20185	Boot-tree-----	W. W. Willmott, assignor to himself and H. F. Gardner.-----	Boston, Mass-----	May 4, 1858.
20914	Boot-tree-----	A. J. Wisner-----	Homer, N. Y.-----	July 13, 1858.
21424	Boots and shoes, apparatus for applying soles to.	Jacob Jenkins-----	Charlestown, Mass-----	Sept. 7, 1858.
21564	Boots and shoes, apparatus for applying soles to.	Jacob Jenkins-----	Charlestown, Mass-----	Sept. 21, 1858.
20960	Boots and shoes, heel shavers for -----	Varanes Snell-----	North Bridgewater, Mass--	July 20, 1858.
22328	Boots and shoes, heels for.-----	Samuel Flint and Robert S. Rogers, as- signors to William F. Johnson.-----	Lynn, Mass-----	Dec. 14, 1858.
20936	Boots and shoes, machine for cutting out the soles of.-----	John Crawshaw-----	Rochester, N. Y.-----	July 20, 1858.
21593	Boots and shoes, machine for pegging.-----	B. F. Sturtevant, assignor to himself and Elmer Townsend.-----	Boston, Mass-----	Sept. 21, 1858.
19611	Boots and shoes, machine for pricking and cutting heels of.-----	Edward S. Snell, assignor to himself and Francis B. Washburn.-----	North Bridgewater, Mass--	Mar. 9, 1858.
19040	Boots and shoes, metal tips for toes of.-----	George A. Mitchell -----	Turner, Maine-----	Jan. 5, 1858; reissued Dec. 7, 1858.
19305	Boots and shoes, method of attaching India rubber soles to.-----	Abram T. Merwin -----	New Haven, Conn-----	Feb. 9, 1858.
21334	Boots and shoes, method of stretching-----	George W. Griswold-----	Carbondale, Pa-----	Aug. 31, 1858.
20510	Boots and shoes, revolving heels of.-----	J. H. Roome-----	New York, N. Y.-----	June 8, 1858.
21760	Boots and shoes, soles for, tool for chamfering.	William Johnson-----	Hampstead, N. H-----	Oct. 12, 1858.
22248	Boots, edge-keys for.-----	George C. Todd-----	Lynn, Mass-----	Dec. 7, 1858.
19269	Boots, gaiter shoes and, water-proof.-----	Thomas C. Wales-----	Dorchester, Mass-----	Feb. 2, 1858.

21889	Bridle to prevent horses from kicking or running away.	John M. Lanier	Eufaula, Ala.	Oct. 25, 1858.
22352	Buckles	John Cumberland and James R. McClintock	Mobile, Ala.	Dec. 21, 1858.
19169	Collar and hames, horse,	G. W. N. Yost	New York, N. Y.	Jan. 19, 1858.
19846	Collar-block, horse	E. D. Gould	Cincinnati, Ohio	April 6, 1858.
21301	Collar-block, horse	B. W. McClure and George Marsh, assignors to B. W. McClure and J. H. Windsor.	Darien, N. Y.	Aug. 24, 1858.
21821	Collar, horse	C. K. Cuckler	Pike Hollow, N. Y.	Oct. 19, 1858.
20816	Collars, horse, machine for stuffing	Levi Plonk	Columbus, Ohio	July 6, 1858.
21674	Halters and bridles for horses	Samuel C. Hawkins	Newton, N. C.	Oct. 5, 1858.
22096	Hame fastener	John Tingley	Patchogue, N. Y.	Nov. 16, 1858.
20278	Hame-tug fastener	E. D. Lockwood	Potter county, Pa.	May 18, 1858.
20246	Hame-tugs, fastening for	Joseph E. Ball	Churchville, N. Y.	May 18, 1858.
21267	Harness	Freedom Monroe	Newark, N. J.	Aug. 24, 1858.
22383	Harness buckles	Oren B. Smith	Romeo, Mich.	Dec. 21, 1858.
21989	Harness, machine for creasing and blacking leather for.	Adolph Stempel	Monticello, N. Y.	Nov. 2, 1858.
20588	Harness-pads, construction of	R. M. Selleck	Oquaroka, Ill.	June 15, 1858.
19048	Harness-saddle	Henry Sanders	New York, N. Y.	Jan. 5, 1858.
20463	Harness-saddles, construction of wooden saddle-trees for.	F. P. Ambler, jr., assignor to F. P. Ambler & Sons.	Utica, N. Y.	June 1, 1858.
22290	Harness-snaps	B. B. Hotchkiss	Trumbull, Conn.	Dec. 14, 1858.
19078	Harness-tree	Thomas Dempsey	Sharon, Conn.	Jan. 12, 1858.
19371	Harness-tree	F. B. Kuehnhold and D. B. Sturges	Newark, N. J.	Feb. 16, 1858.
20222	Harness tug-buckle	W. Straw and R. H. Armstrong	Newark, N. J.	May 11, 1858.
20997	Harness tug-buckle	John H. Feraw	Hudson, Mich.	July 27, 1858.
20861	Hides and leather, machine for dressing	J. R. Bumgarner and L. White	Hinsdale, N. Y.	July 13, 1858.
20228	Last	S. S. Turner	Davenport, Iowa	May 11, 1858.
20393	Last-holder, rotary	David Philbrick, assignor to himself, and Elmer Townsend.	Westboro', Mass.	May 25, 1858.
21721	Leather, artificial	William Kemble Hall, assignor to Amos Broadnax	Manchester, N. H.	Oct. 5, 1858.
19583	Leather, enamelling	John Rose	Boston, Mass.	Mar. 9, 1858.
20093	Leather from vats, apparatus for raising	Charles E. Robinson & L. D. Sanborn	West Hoboken, N. J.	April 27, 1858.
21114	Leather into bales, machine for rolling	Nathan Burk	St. Louis, Mo.	Aug. 10, 1858.
22108	Leather, machine for splitting	H. E. Chapman	Newark, N. J.	Nov. 23, 1858.
20911	Leather shaving-knife	J. B. Wentworth	Concord, N. H.	July 13, 1858.
20098	Leather-sticker	H. Lee Seitzbach	Fulton, N. Y.	April 27, 1858.
			Albany, N. Y.	
			Lynn, Mass.	
			Marietta, Pa.	



*List of patents for inventions, 1858—CLASS XVI.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21937	Leather-straps, tool for chamfering .....	James Bridger.....	Richland, Iowa.....	Nov. 2, 1858.
20821	Leathering tacks, machine for.....	Charles L. Russell .....	Derby, Conn.....	July 6, 1858.
20819	Leathering tacks, machine for.....	Jesse Reed .....	Marshfield, Mass .....	July 6, 1858.
22340	Pegging-jack.....	Thomas D. Bailey.....	Lowell, Mass.....	Dec. 21, 1858.
21091	Pegging-machine.....	E. M. Stevens.....	Boston, Mass.....	Aug. 3, 1858.
19354	Reins, horse, device for holding .....	J. A. & F. Dunworth.....	Dobb's Ferry, N. Y.....	Feb. 16, 1858.
22130	Saddle-tree .....	Jesse Nece .....	Philadelphia, Pa .....	Nov. 23, 1858.
20439	Shoe, over, straw and wood.....	F. W. Michel, W. C. Willcox, & H. T. Miller.....	Utica, N. Y.....	June 1, 1858.
19461	Shoe-peg machine.....	Abijah Woodward .....	Keene, N. H.....	Feb. 23, 1858.
19730	Shoe-peg machine.....	Amos H. Boyd, assignor to Samuel F. Chase.....	Saco, Me .....	Mar. 23, 1858.
22061	Shoe-peg machine.....	Azro Brown.....	West Waterford, Vt.....	Nov. 16, 1858.
21104	Shoe-pegs, machine for manufacturing .....	I. G. Worth.....	Vassalboro' Me.....	Aug. 3, 1858.
19282	Shoe-pegs, method of preparing blanks for.....	B. F. Sturtevant, assignor to himself and Elmer Townsend.....	Boston, Mass.....	Feb. 2, 1858.
21223	Shoe-tool, combination .....	D. J. Tapley .....	Danvers, Mass .....	Aug. 17, 1858.
20882	Shoemaker's edge plane .....	Freeman Kilbrith.....	Pembroke, Mass.....	July 13, 1858.
19284	Shoes, bags, &c., implement for holding open..	John Allender.....	New London, Conn.....	Feb. 9, 1858.
21500	Shoes, cemented sole, heating apparatus for the manufacture of.....	Jacob Jenkins .....	Charlestown, Mass .....	Sept. 14, 1858.
21051	Shoes, machine for pegging.....	L. Lackey, assignor to himself, and.....	Sutton, Mass.....	July 27, 1858.
19542	Skins, artificial, manufacture of .....	Elmer Townsend.....	Boston, Mass .....	Mar. 9, 1858; Eng-land, Nov. 18, 1853.
21764	Stirrups .....	John Loudon & Hans Iverson .....	New York, N. Y.....	Oct. 12, 1858.
21755	Tanning.....	Barzillai Harrington & Nelson Russell .....	China, Me.....	Oct. 12, 1858.
21705	Tanning, apparatus for .....	A. C. Taggart & A. Gray .....	Allegheny, Pa .....	Oct. 5, 1858.
21163	Tanning hides.....	Theodore Klenam, assignor to .....	Pfullinger, Wurtemberg, Germany.....	Aug. 10, 1858.
21126	Tanning hides, apparatus for.....	Edward Marse.....	London, England .....	Aug. 10, 1858.
		Lewis C. England.....	Owego, N. Y.....	

19201	Tanning leather .....	Butler G. Noble .....	Whitewater, Wis.....	Jan. 26, 1858.
20565	Tanning leather .....	H. G. Johnson .....	Cleveland, Ohio.....	June 15, 1858.
	Tanning leather, composition for. (See Class IV, letter C.) .....			
20502	Tanning, method of.....	Jesse Morgan.....	Sumpterville, S. C.....	June 8, 1858.
19211	Tanning skins, apparatus for.....	Charles A Shaw & James Clark.....	Biddeford, Me.....	Jan. 26, 1858.
21394	Trace-fastening .....	John C. De Witt, assignor to himself and T. Benedict.	West Bloomfield, N. J .....	Aug. 31, 1858.
		Uel J. Reynolds .....	Webster, N. Y .....	Dec. 28, 1858.
22454	Trace-fastening.....	Samuel Lagowitz .....	Newark, N. J.....	April 13, 1858.
19934	Trunk-handles, mode of constructing.....	R. M. Wade.....	Wadesville, Va.....	July 6, 1858.
20832	Trunk-protector.....	Joseph Dudley .....	Fall River, Mass .....	May 18, 1858.
20259	Trunks, card-plates for .....			

CLASS XVII.—HOUSEHOLD FURNITURE, machines and implements for domestic purposes, including washing machines, bread and cracker machines, feather dressing, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21218	Andiron.....	J. B. Sargent. ....	New Britain, Conn. ....	Aug. 17, 1858.
19402	Apple-corer.....	A. N. Alcott.....	Gowanda, N. Y.....	Feb. 23, 1858.
21695	Apple-paring knife.....	Adam Oot.....	Minetto, N. Y.....	Oct. 5, 1858.
20295	Apples, device for slicing.....	H. & J. S. B. Norton.....	Farmington, Me.....	May 18, 1858.
21141	Apples, machine for coring and quartering.....	Charles Lounsberry, jr.....	Nichols, N. Y.....	Aug. 10, 1858.
20814	Apples, machine for paring, slicing, and coring.....	J. J. Parker.....	Marietta, Ohio.....	July 6, 1858.
20550	Basins, water-closet, attachment of pipes to .....	William S. Carr.....	New York, N. Y.....	June 15, 1858.
21042	Batter-machine.....	Ellyson Yerby .....	Washington, D. C.....	July 27, 1858.
20362	Bed-bottom.....	James M. Noble.....	Delhi, Iowa.....	May 25, 1858.
20486	Bed-bottom.....	Benjamin Griffin.....	Lawrence, Mass.....	June 8, 1858.
21123	Bed-bottom.....	W. H. Elliot .....	Plattsburgh, N. Y.....	Aug. 10, 1858.
21263	Bed-bottom.....	Rufus Leavitt.....	Cambridge, Mass.....	Aug. 24, 1858.
21519	Bed-bottom.....	Franklin Russell.....	Otselic, N. Y.....	Sept. 14, 1858.
19473	Bed-bottom, spring.....	C. Schroeder, assignor to himself and P. H. Tuska.	New York, N. Y.....	Feb. 23, 1858.
19410	Bed-bottom, spring.....	Jacob Coover.....	Chambersburg, Penn.....	Feb. 23, 1858.
19922	Bed-bottom, spring.....	Elbridge Foster.....	Hartford, Conn.....	April 13, 1858.



*List of patents for inventions, 1858—CLASS XVII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20609	Bed-bottom, spring-----	George E. Safford, assignor to himself and F. G. and F. T. Ward.	New York, N. Y.-----	June 15, 1858.
22098	Bed-bottom, spring-----	Noah Warlick-----	Chambers C. H., Ala-----	Nov. 16, 1858.
20097	Bedstead-----	N. W. Speers-----	Cincinnati, Ohio-----	April 27, 1858.
20435	Bedstead-----	W. B. Johns-----	U. S. A-----	June 1, 1858.
20518	Bedstead-----	William St. Charles-----	Fairmont, Va-----	June 8, 1858.
20750	Bedstead-----	C. A. Warner-----	Bristol, Conn-----	June 29, 1858.
20723	Bedstead-----	Norman Lanphear-----	Monmouth, Ill-----	June 29, 1858.
21527	Bedstead-----	William S. Todd-----	Mechanicsville, Iowa-----	Sept. 14, 1858.
21841	Bedstead-----	Rufus Maxwell-----	Tucker county, Va-----	Oct. 19, 1858.
21878	Bedstead-bottom-----	Samuel E. Hartwell-----	New York, N. Y-----	Oct. 26, 1858.
21926	Bedstead, bureau-----	Francis Hoffman, assignor to himself and John Menzell.	New York, N. Y-----	Oct. 26, 1858.
19451	Bedstead, cast iron, fastening of-----	A. C. Semple-----	New York, N. Y-----	Feb. 23, 1858.
19544	Bedstead-fastening-----	William Clark-----	Weymouth, Ohio-----	Mar. 9, 1858.
20478	Bedstead-fastening-----	George Burket-----	Croghan, Ohio-----	June 8, 1858.
20839	Bedstead-fastening-----	E. S. Wright-----	Buffalo, N. Y-----	July 6, 1858.
21511	Bedstead-fastening-----	Isaac M. May-----	Anderson, Ia-----	Sept. 14, 1858.
22456	Bedstead-fastening-----	Oliver Robinson-----	Rochester, N. Y-----	Dec. 28, 1858.
19254	Bedstead, invalid-----	George Miller-----	Fremont, Ohio-----	Feb. 2, 1858.
20580	Bedstead, invalid-----	Joseph Parker-----	Liverpool, England-----	June 15, 1858; England, Dec. 14, 1857.
19987	Bedstead, portable invalid-----	Zebulon C. Favor-----	Chicago, Ill-----	April 20, 1858.
20092	Bedstead-rail-----	Charles Robinson-----	Cambridgeport, Mass-----	April 27, 1858.
20206	Bedstead, sofa-----	John Irwin-----	Philadelphia, Penn-----	May 11, 1858.
19649	Bedstead, spring-----	Nathan M. Phillips-----	New York, N. Y-----	Mar. 16, 1858.
19449	Bedstead, wardrobe-----	Chandler Robbins-----	Chicago, Ill-----	Feb. 23, 1858.
21108	Beef and other steaks tender, machine for making-----	T. W. Moore, assignor to Elliot & Moore-----	Plattsburgh, N. Y-----	Aug. 3, 1858.
19082	Bell-hanging-----	N. G. Dubois-----	Brooklyn, N. Y-----	Jan. 12, 1858.
21335	Bell, house, portable-----	Albert W. Hale-----	New Britain, Conn-----	Aug. 31, 1858.
21422	Bells, hanging-----	George R. Meneely-----	West Troy, N. Y-----	Sept. 7, 1858.
19075	Blackening boots, shoes, &c., machine for-----	James M. Connel and John Connel-----	Newark, Ohio-----	Jan. 12, 1858.



20307	Boot-jack.....	O. S. Sikes.....	Suffield, Conn.....	May 18, 1858.
22404	Boot-jack.....	Frederick Ahl.....	West Meriden, Conn.....	Dec. 28, 1858.
19844	Boot-jack and burglar's alarm, combined.....	F. C. Goffin.....	Newark, N. J.....	April 6, 1858.
21619	Bread and cracker machine.....	W. R. Nevins and J. J. Yates.....	New York, N. Y.....	Sept. 28, 1858; Eng- land, Mar. 13, 1857.
19238	Bread-cutter.....	Matthew Chapman.....	Greenfield, Mass.....	Feb. 2, 1858.
19190	Brooms, art of making.....	Thomas Floyd, assignor to himself, Daniel K. Wunderlick, and Benjamin F. Nead. Oliver Mitchell.....	Chambersburg, Penn.....	Jan. 26, 1858.
19039	Brooms, construction of.....	J. W. Wheeler, assignor to himself and C. B. Williams.....	Eaton, Penn.....	Jan. 5, 1858.
19971	Brooms, machine for manufacturing splints for.....	J. H. Tatum.....	Cleveland, Ohio.....	April 13, 1858.
20226	Brush.....	Reuben Shaler.....	New York, N. Y.....	May 11, 1858.
22381	Brush.....	Charles Williams.....	Madison, Conn.....	Dec. 21, 1858.
19459	Brush-block, whitewash.....	Charles D. Thum.....	Philadelphia, Penn.....	Feb. 23, 1858.
21092	Brush, case-shoe.....	David W. Shaw and William A. Megrav.....	Philadelphia, Penn.....	Aug. 3, 1858.
20447	Brush, whitewash.....	Stephen Barnes, assignor to himself, Henry S. Parsons, and Samuel Rowland.....	Baltimore, Md.....	June 1, 1858.
21464	Brushes, manufacture of.....	J. D. Burton.....	New Haven, Conn.....	Sept. 7, 1858.
19069	Bureaus and wash-stands, construction of.....	James H. Stimpson.....	Boston, Mass.....	Jan. 12, 1858.
21220	Butter-bucket.....	James H. Stimpson.....	Baltimore, Md.....	Aug. 17, 1858.
20902	Butter-cooler.....	James H. Stimpson.....	Baltimore, Md.....	July 13, 1858.
19103	Butter-worker.....	Justin M. Smith.....	Lyme, Conn.....	Jan. 12, 1858.
21106	Butter-worker.....	N. W. Bancroft, assignor to himself and H. N. Proctor.....	Burlington, Vt.....	Aug. 3, 1858.
21460	Butter-worker.....	Ziba Williams.....	Ithaca, N. Y.....	Sept. 7, 1858.
20054	Cabbage-cutter.....	Adam Fischer.....	Dayton, Ohio.....	April 27, 1858.
20209	Can for preserving food.....	A. S. Lyman.....	New York, N. Y.....	May 11, 1858.
20722	Can for preserving food, &c.....	A. S. Lyman.....	New York, N. Y.....	June 29, 1858.
22436	Can, fruit.....	W. W. Lyman.....	West Meriden, Conn.....	Dec. 28, 1858.
19063	Can, instrument for opening.....	Ezra J. Warner, assignor to himself, Wm. H. Warner, and Rufus E. Hitchcock.....	Waterbury, Conn.....	Jan. 5, 1858.
20203	Can, preserve.....	Edwin W. Gilmore.....	North Easton, Mass.....	May 11, 1858.
20485	Can, preserve.....	H. G. Dayton.....	Maysville, Ky.....	June 8, 1858.
21078	Can, preserve.....	Emmons Manley.....	Marion, N. Y.....	Aug. 3, 1858.
22351	Can, preserve.....	P. H. Cotton.....	Demopolis, Ala.....	Dec. 21, 1858.
21348	Can, preserve, method of sealing.....	W. W. Lyman.....	West Meriden, Conn.....	Aug. 31, 1858.
22247	Can, preserve, sealing.....	Allen Taylor.....	Baltimore, Md.....	Dec. 7, 1858.
	Candlesticks, &c. (See Class V.)			



## List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19465	Carpet-beating-machine ----- {	Joseph Harris, jr, and Daniel Holmes, assignors to Daniel Holmes.	Roxbury, Mass.----- }	Feb. 23, 1858.
21211	Carpet-cleaner -----	A. W. Noney -----	Chelsea, Mass.----- }	Aug. 17, 1858.
19164	Carpet-fastener -----	Charles A. Wakefield -----	Bridgeport, Conn.-----	Jan. 19, 1858.
20341	Carpet-fastener -----	Warren Filkins -----	Dalton, Mass.-----	May 25, 1858.
21325	Carpet-fastener -----	M. Dewey and I. Phillips -----	Lancaster, N. Y.-----	Aug. 31, 1858.
21365	Carpet-fastener -----	Joseph Reynolds -----	Clarendon, N. Y.-----	Aug. 31, 1858.
22354	Carpet-fastener -----	Richard DeCharms -----	New Britain, Conn.-----	Dec. 21, 1858.
19882	Carpet-holder -----	Horace Thayer -----	Philadelphia, Penn.-----	April 6, 1858.
19230	Carpet-stretcher -----	Hermann Blau -----	Warsaw, N. Y.-----	Feb. 2, 1858.
19596	Carpet-stretcher -----	Joseph Warner -----	Washington, D. C.-----	Mar. 9, 1858.
21303	Carpet-stretcher -----	Henry Ridley, assignor to S. P. Thatcher and Walter Stillman.	New Britain, Conn.-----	Aug. 24, 1858.
21654	Carpet-stretcher -----	W. C. Conant -----	Hartford, Conn.-----	Oct. 5, 1858.
21233	Carpet-sweeper -----	H. H. Herrick, assignor to L. Culver -----	New York, N. Y.-----	Aug. 17, 1858.
21451	Carpet-sweeper -----	Reuben Shaler -----	East Boston, Mass.-----	Sept. 7, 1858.
21660	Carpet-sweeper -----	Jacob Edson -----	Madison, Conn.-----	Oct. 5, 1858.
21673	Carpet-sweeper -----	Daniel Harris -----	Boston, Mass.-----	Oct. 5, 1858.
21701	Carpet-sweeper -----	Stephen P. Rowell -----	Boston, Mass.-----	Oct. 5, 1858.
21815	Carpet-sweeper -----	Augustus C. Carey -----	Reading, Mass.-----	Oct. 19, 1858.
19824	Castors, sirup -----	Edmund Bigelow -----	Ipswich, Mass.-----	April 6; reissued May 5, 1858.
20376	Chair and cradle, combined rocking Chair-backs, machine for manufacturing. (See Class XIV.)	A. S. Smith -----	Springfield, Mass.-----	May 25, 1858.
22297	Chair, folding -----	R. McG. Lytle, I. Alston, and Lorenzo W. True.	Lawrence, Mass.-----	Dec. 14, 1858.
20198	Chair, reclining -----	Augustus Eliaers -----	Williamson county, Tenn.-----	May 11, 1858.
22145	Chair, reclining -----	Amos E. Kendall and Peter K. Keyes, as- signors to themselves and C. W. Elton.	Boston, Mass.-----	Nov. 23, 1858.
21320	Chair, recumbent -----	David Buzzell -----	New York, N. Y.-----	Aug. 31, 1858.
19352	Chair, rocking -----	Thomas W. Currier -----	Charlestown, Mass.-----	Feb. 16, 1858.
			Lawrence, Mass.-----	

20863	Chair, rocking	I. P. Carrier	South Glastonbury, Conn.	July 13, 1858.
19343	Chair, rotary blast-producing	L. R. Breisach	New York, N. Y.	Feb. 16; add'l imp't June 1, 1858.
22419	Chairs and other seats, spring-bottom for	Patrick Gallagher	Pleasant Unity, Pa.	Dec. 28, 1858.
21409	Chairs, cane-seat for	John R. Cannon	New Albany, Ind.	Sept. 7, 1858.
19582	Chairs, sofas, &c., spring-seats of.	Charler Robinson	Cambridgeport, Mass.	Mar. 9, 1858.
20653	Cheese-vat	Henry A. Roe	West Andover, Ohio	June 22, 1858.
19476	Cherries, machine for stoning	Joseph Baker	Washington county, D. C.	Mar. 2, 1858.
22464	Closet for sewing-machines	William P. Uhlinger	Philadelphia, Pa.	Dec. 28, 1858.
19772	Clothes-dryer	James J. Hamilton	New Castle, Ind.	Mar. 30, 1858.
20954	Clothes-dryer	S. H. Tift	Morrisville, Vt.	July 20, 1858.
21035	Clothes-dryer	S. H. Tift	Morrisville, Vt.	July 27, 1858.
21639	Clothes-dryer	E. G. Gibson, assignor to H. G. Finkham	Owego, N. Y.	Sept. 28, 1858.
21626	Clothes-dryer	Emma T. Porter	Washington, D. C.	Sept. 28, 1858.
20868	Clothes-drying apparatus	O. R. Dinsmoor	Auburn, N. H.	July 13, 1858.
20579	Clothes-frame	Enos Page	Streetsboro', Ohio	June 15, 1858.
22398	Clothes-frame	William Hathaway, assignor to William G. Maynard.	Worcester, Mass.	Dec. 21, 1858.
20669	Clothes, frame for drying	Chester Stone	Ravenna, Ohio	June 22, 1858.
21231	Clothes-horse	E. Culver, jr., assignor to himself and S. M. Blackwell.	Shelburne Falls, Mass.	Aug. 17, 1858.
22435	Clothes-horse	Tristram S. Lewis	Kendall's Mills, Me.	Dec. 28, 1858.
21818	Clothes-line, post for	Benjamin Chesnut	Philadelphia, Pa.	Oct. 19, 1858.
20470	Clothes, machine for wringing	E. L. Hagar, assignor to himself and T. D. Aylsworth.	Frankfort, N. Y.	June 1, 1858.
22451	Clothes, pestles for cleansing	Ezra Pollard, assignor to himself and B. W. Seeley.	Albany, N. Y.	Dec. 28, 1858.
20364	Clothes-pins	Dexter, Pierce	Sunapee, N. H.	May 25, 1858.
21029	Clothes-wringer	Isaac A. Sergeant	Springfield, Ohio	July 27, 1858.
21066	Coffee, apparatus for making	J. Dealey and T. H. Heberling	Warsaw, Ill.	Aug. 3, 1858.
19827	Coffee, apparatus for roasting	Robert Brown	Ashtabula, Ohio	April 6, 1858.
20577	Coffee-roaster. (See Class V.)	Charles Neer	Troy, N. Y.	June 15, 1858.
21606	Cracker-machine	J. & J. C. Holyland	Rochester, N. Y.	Sept. 28, 1858.
22056	Cradle, infant's	Thomas C. Ball	Keene, N. H.	Nov. 16, 1858.
20284	Cradle, spring-rocking	Jean B. Malbert and Augusti Cheviron	St. Louis, Mo.	May 18, 1858.
22349	Cruet, pepper	Henry T. Clawson	Newbern, N. C.	Dec. 21, 1858.
19560	Curtain-fixtures	Joseph F. Hall	Bangor, Me.	Mar. 9, 1858.
20013	Curtain-fixtures	Thomas K. Work	Hartford, Ct.	April 20, 1858.



## List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22153	Curtain-fixtures	Thomas C. Baldwin	Newton, Mass.	Nov. 30, 1858.
20906	Dishes, earthen-ware	A. & T. Vali	Berlin, Wis.	July 13, 1858.
21633	Dough for bread, apparatus for raising	Josee Johnson	New York, N. Y.	Oct. 5, 1858.
19968	Dough, machine for rolling and cutting	J. S. Schuyler, assignor to J. McCollum	New York, N. Y.	April 13, 1858.
19610	Dough, raising	James Perry and E. Fitzgerald, assignors to James Perry, Daniel Fitzgerald, and Horatio Bogert.	New York, N. Y.	Mar. 9, 1858.
19738	Egg-beater	P. Mihan, assignor to P. Mihan and G. Davis.	Boston, Mass.	Mar. 23, 1858.
22161	Eggs, apparatus for assorting	Henry Burt	Newark, N. J.	Nov. 30, 1858.
20032	Eggs, beating, churning, and the like processes, apparatus for.	William Borrman	Cincinnati, Ohio	April 27, 1858.
20359	Foot-cleaner	Allan McKeachie	New York, N. Y.	May 25, 1858.
19733	Freezer, cream	Enoch S Farson, assignor to himself and Henry H. Brown.	Philadelphia, Pa.	Mar. 23, 1858.
19147	Freezer, ice-cream	H. B. Masser	Sunbury, Pa.	Jan. 19, 1858.
19635	Fruit, apparatus for drying	William Heaton	Green county, Pa.	Mar. 16, 1858.
21415	Fruit-box	Nicholas Hallock	Flushing, N. Y.	Sept. 7, 1858.
22433	Fruit, preserving	John K. Jenkins	Kingston, Pa.	Dec. 28, 1858.
20031	Furniture-casters	Henry D. Blake	New Hartford Centre, Ct.	April 27, 1858.
22243	Furniture-casters, device for supporting	Henry E. Richards	Newark, N. J.	Dec. 7, 1858.
19369	Furniture, casters for	Jacob Kinzer	Pittsburg, Pa.	Feb. 16, 1858.
19127	Furniture, construction of	A. D. Brown	Glasgow, Scotland	Jan. 19, 1858.
19405	Furniture, method of manufacturing	John H. Belter	New York, N. Y.	Feb. 23, 1858.
19507	Gridiron, folding. (See Class V.)	John Keezer	Chillicothe, Ohio	Mar. 2, 1858.
20538	Hominy-mortar	Jason Barton	East Hampton, Ct.	June 15, 1858.
21891	Housebell	David Lithgow	Philadelphia, Pa.	Oct. 26, 1858.
21450	Iron, flat	John Schaeffer	Lancaster, Pa.	Sept. 7, 1858.
19964	Ironing clothes, machine for	J. Borden, assignor to David Potter and F. L. Bodine.	Bridgeton, N. J.	April 13, 1858.
22066	Jar, sealing preserve	Reuben M. Dalbey	Mount Washington, Ohio	Nov. 16, 1858.

21442	Kneading-machine	W. S. Reinert	Philadelphia, Pa	Sept. 7, 1858.
20724	Knife and spoon cleaner	James McNish	Berlin, Wis	June 29, 1858.
20391	Knife-cleaner	W. Miller, assignor to himself and D. S. French.	Waltham, Mass	May 25, 1858.
20929	Knife-cleaner	Jacob J. Banta	Jersey City, N. J	July 20, 1858.
20340	Knife-polisher	H. T. Field	New Braintree, Mass	May 25, 1858.
21058	Knife-sharpener	John J. & A. T. Armstrong	Brooklyn, N. Y	Aug. 3, 1858.
22055	Knife-sharpener	Alexander Annan	New York, N. Y	Nov. 16, 1858.
21746	Knives, grinding and polishing	James Dodge	Waterford, N. Y	Oct. 12, 1858.
19419	Ladle, culinary	Joseph C. Haines	Dublin, Ind.	Feb. 23, 1858.
21044	Mangle	D. Cumming, jr., assignor to D. Cumming, sr.	Mobile, Ala	July 27, 1858.
20002	Mangle, domestic	Samuel Nolan	New York, N. Y	April 20, 1858.
19347	Mat, door, India rubber	Edwin M. Chaffee	Providence, R. I.	Feb. 16, 1858.
20112	Mattress, folding	William Wells	Harrisburg, Pa	April 27, 1858.
22037	Mattresses and cushions, elastic material for	Thomas Briggs Smith	Marietta, Ohio	Nov. 9, 1858.
19681	Meat-chopper	P. H. Chesley	Lynn, Mass	Mar. 23, 1858.
20258	Meat-chopper	L. A. Dole	Salem, Ohio	May 18, 1858.
19547	Meat-cutter	Abner B. Davenport	Petersham, Mass	Mar. 9, 1858.
20019	Meat-cutter	Pierre Demuere, assignor to Charles Chefy	Brooklyn, N. Y	April 20, 1858.
21421	Meat-cutter	Jacob K. Hoyer	Reading, Pa	Sept. 7, 1858.
21514	Meat-cutter	M. Newman	Oak Hill, N. Y	Sept. 14, 1858.
19728	Meat-cutting machine	Frederick Wolfersberger	Salem Station, Ohio	Mar. 23, 1858.
21016	Milk, closet for	E. H. Nash	Westport, Ct	July 27, 1858.
21842	Mop and brush, combined	Henry McClay	Niles, Mich	Oct. 19, 1858.
21019	Musquito-bars, means of adjusting	F. C. Payne	Hebron, Ct	July 27, 1858.
19965	Oven	J. S. Brown, assignor to himself and Joseph Kent.	Washington, D. C	April 13, 1858.
19050	Oven. (See Class V.)	John Seipel and William Rupp	Washington, D. C	Jan. 5, 1858.
19648	Oyster-opener	Solomon Oppenheimer	Peru, Ind.	Mar. 16, 1858.
20811	Pail, milking	T. E. McNeill	Philadelphia, Pa	July 6, 1858.
19182	Pan, dust	Edmund Brown	Lynn, Mass	Jan. 26, 1858.
19855	Pepper-box, air-tight	Ernest Kauffman	Philadelphia, Pa	April 6, 1858.
20592	Pitcher, ice	George W. Smith	Hartford, Ct	June 15, 1858.
21717	Pitcher, ice	James Stimpson, deceased, Jas. H. Stimpson, executor of.	Baltimore, Md	Oct. 5, 1858.
20499	Pitcher, refrigerating	W. W. Lyman	West Meriden, Ct	June 8, 1858.
21808	Pot, coffee	Nelson Barlow	New York, N. Y	Oct. 19, 1858.



*List of patents for inventions, 1858—CLASS XVII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19780	Pot, coffee and tea.	James M. Ingraham.	New York, N. Y.	Mar. 30, 1858.
21589	Pot, tea.	William Austin, assignor to himself and William Oblyke.	Philadelphia, Pa.	Sept. 21, 1858.
22278	Pot, tea and coffee.	Stephen Culver.	Newark, N. J.	Dec. 14, 1858.
20517	Provision-cutter.	William Smith.	Cincinnati, Ohio.	June 8, 1858.
20543	Quilting-frame.	Alanson Brown.	Rochester, N. Y.	June 15, 1858.
20764	Quilting-frame.	John King, assignor to himself, W. Higbie, H. Link, and G. R. Comstock.	Little Falls, N. Y.	June 29, 1858.
19107	Back, clothes.	Chester Stone.	Ravenna, Ohio.	Jan. 12, 1858.
20974	Rack, clothes.	George Young, jr.	Saratoga Springs, N. Y.	July 20, 1858.
21131	Rack, clothes.	A. A. Harris.	Ravenna, Ohio.	Aug. 10, 1858.
19373	Refrigerator.	W. D. Ludlow.	New York, N. Y.	Feb. 16, 1858.
19837	Refrigerator.	W. Ferris, P. Garrett, and J. Megratten.	Wilmington, Del.	April 6, 1858.
20621	Refrigerator.	J. D. Burton.	Charlestown, Mass.	June 22, 1858.
20907	Refrigerator.	Nathaniel Waterman.	Boston, Mass.	July 13, 1858.
20895	Refrigerator.	Henry Rehahn.	New York, N. Y.	July 13, 1858.
21897	Refrigerator.	James Naughten.	Cincinnati, Ohio.	Oct. 26, 1858.
21977	Refrigerator.	Benjamin M. Nyce.	Kingston, Ind.	Nov. 2, 1858.
22104	Refrigerator.	Abel H. Bartlett.	Spuyten Duyvil, N. Y.	Nov. 23, 1858.
22127	Refrigerator.	Adolphus Lippmann.	New York, N. Y.	Nov. 23, 1858.
19432	Refrigerator, table.	Charles A. McEvoy.	Richmond, Va.	Feb. 23, 1858.
21337	Sad-iron heater cover.	William Heath.	Lincoln, Me.	Aug. 31, 1858.
20815	Sausage-filler.	J. G. Perry.	South Kingston, R. I.	July 6, 1858.
21965	Sausage-machine.	R. V. Jones.	Johnstown, Pa.	Nov. 2, 1858.
19106	Scissors, manufacture of. (See Class II.)	Andrew Stevely.	New Haven, Ct.	Jan. 12, 1858.
19467	Scissors-sharpener.	George Hinman, assignor to himself and John H. Pardee.	New Haven, Ct.	Feb. 23, 1858.
19784	Scissors-sharpener.	John C. Loveland.	Springfield, Vt.	Mar. 30, 1858.
21868	Scrubbing-machine.	Samuel M. Barnett.	New Orleans, La.	Oct. 26, 1858.
20018	Smoothing and polishing-iron.	Francis A. Cannon, assignor to John Phillips.	Brooklyn, N. Y.	April 20, 1858.

20445	Smoothing-iron	Abraham Rudisill	York, Pa	June 1, 1858.
20451	Spittoon	W. Staehlen	Williamsburg, N. Y	June 1, 1858.
21799	Stair-pad, elastic	Thomas J. Mayall, assignor to himself and Benjamin F. Cook.	Roxbury, Mass	Oct. 12, 1858.
22301	Stair-sweeper	F. H. Moore	Boston, Mass	Dec. 14, 1858.
21633	Stand, embroidery and sewing	William H. Trowbridge	Saginaw, Mich	Sept. 28, 1858.
21275	Stand, ice	H. A. Roberts	Hartford, Ct	Aug. 24, 1858.
20088	Table, convertible extension	Michael Quigley	Watertown, Wis	April 27, 1858.
20530	Table, extension	George Pratt, assignor to J. A. Ellis and J. E. Hazleton.	Boston, Mass	June 8, 1858.
20489	Table, extension	William Heerd	New York, N. Y	June 8, 1858.
22224	Table, extension	Adolphus Bader	New York, N. Y	Dec. 7, 1858.
22294	Table, folding	Charles Lammrich	New York, N. Y	Dec. 14, 1858.
19390	Table, ironing	William Vandenburg and J. Harvey	New York, N. Y	Feb. 16, 1858.
19883	Table, ironing	William Vandenburg	New York, N. Y	April 6, 1858.
29231	Table, ironing	William Vandenburg	New York, N. Y	May 11, 1858.
19773	Table, self-waiting	G. W. Hagey.	Smithland, Ky.	Mar. 30, 1858.
21832	Table, writing	Jacob S. Haskell.	Salem, Mass.	Oct. 19, 1858.
21885	Tables, dining and other	Alexand Kinkead.	Washington county, D. C.	Oct. 26, 1858.
22086	Tongs for coal, &c.	James M. Meschutt	New York, N. Y.	Nov. 16, 1858.
22070	Vegetable-cutter and coffee-mill combined	Bartholomew Essig	Pittsburg, Pa.	Nov. 16, 1858.
20473	Wash-board	S. M. Barrett, R. S. Lee, and J. M. Waters.	Cincinnati, Ohio	June 8, 1858.
20644	Wash-board	Joseph Keech.	Waterloo, N. Y.	June 22, 1858.
22087	Wash-board	John Miner and Silas Merrick.	New Brighton, Pa.	Nov. 16, 1858.
22053	Wash-board	John Adams.	Pittsburg, Pa.	Nov. 16, 1858.
20428	Wash-stand and night-stool combined	F. W. Hamilton.	Coushohocken, Pa.	June 1, 1858.
19694	Wash-stand, water-tight	Christian Gies.	New York, N. Y.	Mar. 23, 1858.
19037	Washing-machine	Samuel P. Mecay	Killbourne, Ohio	Jan. 5, 1858.
19181	Washing-machine	Nicholas Bennet, assignor to David Parker.	New Lebanon, N. Y.	Jan. 26, 1858.
19257	Washing-machine	W. W. Neal.	Yellow Springs, Ohio	Feb. 2, 1858.
19299	Washing-machine	Edward Julier.	McConnellsville, Ohio	Feb. 9, 1858.
19315	Washing-machine	W. H. Tambling.	Berlin, Wis.	Feb. 9, 1858.
19474	Washing-machine	Benjamin R. Smith, assignor to John Hel- lings.	East Whiteland, Pa.	Feb. 23, 1858.
19609	Washing-machine	H. Lawrence, assignor to himself and J. M. Connel.	Newark, Ohio	Mar. 9, 1858.
19653	Washing-machine	James Robb	Lewistown, Pa.	Mar. 16, 1858.
19634	Washing-machine	Lewis Hannum.	Homer, N. Y.	Mar. 16, 1858.
19788	Washing-machine	James McVicker.	Green county, Pa.	Mar. 30, 1858.



*List of patents for inventions, 1858—CLASS XVII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19911	Washing-machine	Henry Cassell	Fredericktown, Ohio	April 13, 1858.
20101	Washing-machine	Edmund Tharp	Cincinnati, Ohio	April 27, 1858.
20099	Washing-machine	Charles M. Swany	Richmond, Ind	April 27, 1858.
20123	Washing-machine	Henry Yost	St. Louis, Mo	April 27, 1858.
20154	Washing-machine	Ashman Hall	Dansville, N. Y	May 4, 1858.
20244	Washing-machine	D. E. Rohr, assignor to himself and Thomas W. Davis.	Charlestown, Va	May 11, 1858.
20230	Washing-machine	Miner Van Auker	Chazy, N. Y	May 11, 1858.
20369	Washing-machine	Abraham Quimby	Terre Haute, Ind	May 25, 1858.
20365	Washing-machine	F. B. Pratt and F. Tylee	Cleveland, Ohio	May 25, 1858.
20408	Washing-machine	J. L. Conklin, sr., and J. Foust.	St. Louis, Mo	June 1, 1858.
20482	Washing-machine	E. B. Clement	Barnet, Vt	June 8, 1858.
20574	Washing-machine	Benjamin D. Morrell	Windham, Me	June 15, 1858.
20732	Washing-machine	P. C. Rude	Morgantown, Va	June 29, 1858.
20791	Washing-machine	R. H. Harrison	Laurel, Md	July 6, 1858.
20872	Washing-machine	B. T. Ghormley	New Frankfort, Ind	July 13, 1858.
20932	Washing-machine	William Brown	Duncannon, Pa	July 20, 1858.
21216	Washing-machine	D. C. Rood	Altona, Ill	Aug. 17, 1858.
21175	Washing-machine	David Allan	St. Louis, Mo	Aug. 17, 1858.
21261	Washing-machine	W. A. Jordan	Thibodeaux, La	Aug. 24, 1858.
21385	Washing-machine	Thomas J. Tindall	New York, N. Y	Aug. 31, 1858.
21477	Washing-machine	W. T. Armstrong	Sandwich, Ill	Sept. 14, 1858.
21476	Washing-machine	John Allen	Galena, Mo	Sept. 14, 1858.
21565	Washing-machine	Henry R. June	Millport, N. Y	Sept. 21, 1858.
21665	Washing-machine	John Fordyce	Morgantown, Va	Oct. 5, 1858.
21653	Washing-machine	Samuel W. Cole	Millington, Md	Oct. 5, 1858.
21875	Washing-machine	T. G. Eiswald	Providence, R. I.	Oct. 26, 1858.
21867	Washing-machine	W. T. Armstrong	Sandwich, Ill	Oct. 26, 1858.
21909	Washing-machine	Hamilton E. Smith	Philadelphia, Pa	Oct. 26, 1858.
21903	Washing-machine	Joseph F. Pond	Cleveland, Ohio	Oct. 26, 1858.
22236	Washing-machine	John G. Haley, Isaac Wilson, and Jackson Lyon.	Cameron, Ill	Dec. 7, 1858.

22227	Washing-machine .....	Jesse Bowen.....	Yellow Bud, Ohio.....	Dec. 7, 1858.
22461	Washing-machine .....	George W. Swigert.....	Monmouth, Ill.....	Dec. 28, 1858.
21819	Water-coolers, arrangement of means for making tight joints around the faucets of.	John S. Clark .....	Philadelphia, Pa.....	Oct. 19, 1858.
19226	Window-shade fixtures.....	Charles Schleier, assignor to John H. Bonn.....	Brooklyn, N. Y.....	Jan. 26, 1858.
19336	Window-shades, rollers for.....	J. B. Bailey.....	New York, N. Y.....	Feb. 16, 1858 Reissued April 13, 1858.

CLASS XVIII.—ARTS POLITE, FINE, AND ORNAMENTAL, including music, painting, sculpture, engraving, books, paper, printing, binding, jewelry, &c.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22199	Bag-machines, &c , pasting apparatus for.....	S. E. Pettee .....	Mansfield, Mass.....	Nov. 30, 1858.
19046	Bank-notes, &c., shears for cutting.....	S. P. Ruggles .....	Boston, Mass.....	Jan. 5, 1858.
21984	Book and slate, combined .....	Forrest Shepherd.....	New Haven, Conn.....	Nov. 2, 1858.
21759	Book-marker, index or .....	Josee Johnson .....	New York, N. Y.....	Oct. 12, 1858.
21708	Books, machine for numbering the pages of.....	Edward and Calvin E. Town.....	Jersey City, N. J.....	Oct. 5, 1858.
19654	Books, machine for trimming.....	A. C. Semple .....	New York, N. Y.....	Mar. 16, 1858.
21748	Boxes, portable.....	Adolphe Dreyspring.....	Montgomery, Ala .....	Oct. 12, 1858.
21381	Bracelets .....	Francis M. Sweet .....	Syracuse, N. Y.....	Aug. 31, 1858.
21208	Cerotypography, feed motion for.....	John McElheran .....	Brooklyn, N. Y.....	Aug. 17, 1858.
20183	Chains, sheet-metal.....	J. Lancelott, assignor to Sackett, Davis, & Co.	Cranston, R. I.....	May. 4, 1858.
21456	Copying-apparatus, portable.....	William Van Anden .....	Poughkeepsie, N. Y .....	Sept. 7, 1858.
20436	Daguerreotype and other cases, hinge for.....	E. G. Kinsley and S. A. W. Parker, jr.....	Stoughton, Mass.....	June 1, 1858.
20718	Daguerreotype-plates, machine for cleaning ..	Charles Ketcham.....	Penn Yan, N. Y .....	June 29, 1858.
19770	Doll-heads, constructing.....	Ludwig Greiner .....	Philadelphia, Pa .....	Mar. 30, 1858.
21336	Drawing-board .....	Isachar P. Hansell.....	Springfield, Ill.....	Aug. 31, 1858.
19602	Drums, military, construction of.....	Charles M. Zimmermann .....	Philadelphia, Pa .....	Mar. 9, 1858.
21509	Electrotype-moulds, machine for coating.....	Henry Lovejoy and Robert Wheeler.....	Brooklyn, N. Y .....	Sept. 14, 1858.

IV. letter P.)



No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20711	Engravers, &c., ring-clamp for.....	T. R. Hopkins .....	Petersburg, Va.....	June 29, 1858.
19607	Engraving-machine, pantographic, device for..	John Hope, assignor to himself and Thomas Hope.	Providence, R. I.....	Mar. 9, 1858.
20528	Engraving-machines, apparatus for supporting and adjusting gravers for.	John Hope, assignor to himself and Thomas Hope.	Providence, R. I.....	June 8, 1858.
20087	Envelopes for letters, &c.....	Charles Phelps.....	Salem, Mass.....	April 27, 1858.
22405	Envelopes, letter .....	James G. Arnold .....	Worcester, Mass .....	Dec. 28, 1858.
22149	Envelopes, machine for making.....	Milton G. Puffer, assignor to Cyrus White and Lewis A. Corbin.	Rockville, Conn .....	Nov. 23, 1858.
21430	Gilding, apparatus for preparing elliptical frames for.	Robert I. Marcher .....	New York, N. Y.....	Sept. 7, 1858.
21173	Gilding, machine for preparing frames for....	J. W. Campbell .....	New York, N. Y.....	Aug. 10, 1858; ante-dated Mar. 25, 1858.
20078	Gilding on glass, mode of protecting .....	P. V. Mathews.....	Philadelphia, Pa .....	April 27, 1858.
21896	Glass, ornamenting .....	Jasper S. Miles.....	Ann Arbor, Mich .....	Oct. 26, 1858.
19707	Graphotype.....	John McElheran .....	Brooklyn, N. Y.....	Mar. 23, 1858.
20512	Ink-roller .....	Alexander Schimmelfennig and Julius Ende.	Washington, D. C.....	June 8, 1858.
20710	Ink-roller .....	A. A. Hanscom.....	Saco, Me.....	June 29, 1858.
19613	Inkstand .....	Lucien E. Hicks, assignor to David C. Field.	Boston, Mass .....	Mar. 9, 1858.
20028	Inkstand .....	John M. Batchelder.....	Cambridge, Mass.....	April 27, 1858.
21395	Inkstand .....	Valentine Fogerty, assignor to Francis Houghton.	Cambridgeport, Mass .....	Aug. 31, 1858.
21554	Inkstand .....	Samuel Darling .....	Bangor, Me.....	Sept. 21, 1858.
22123	Inkstand .....	Orlando H. Jadwin .....	Carbondale, Pa .....	Nov. 23, 1858.
22429	Inkstand .....	Thomas S. Hudson .....	East Cambridge, Mass.....	Dec. 28, 1858.
19497	Jewelry, loop-chains for .....	C. W. Dickinson .....	Newark, N. J.....	Mar. 2, 1858.
19783	Lead-pencil and eraser, combination of .....	Hymen L. Lipman.....	Philadelphia, Pa .....	Mar. 30, 1858.
19624	Lenses, fluid, mounting .....	Almira M. Cole .....	Windham, Me.....	Mar. 16, 1858.
22089	Melodeons, &c .....	Isaac Rehn .....	Philadelphia, Pa .....	Nov. 16, 1858.
21262	Music stool .....	Edwin Leach .....	Norwich, Conn .....	Aug. 24, 1858.

19293	Musical instrument	U. C. Hill and	Jersey City, N. J.	Feb. 9, 1858.
20397	Musical instrument	C. F. Hill	New York, N. Y.	June 1, 1858.
19345	Musical instruments, machine for cutting key-boards, &c., for.	John D. Akin.	Spartansburg, Pa.	Feb. 16, 1858.
		Derwin E. Butler.	Chesterfield, Ohio.	
22139	Musical instruments, wind.	Cornelius J. Van Oecklen.	New York, N. Y.	Nov. 23, 1858.
19187	Musical wind instrument	C. H. Eisenbrandt.	Baltimore, Md.	Jan. 26, 1858.
19814	Musicians, hard-exerciser for.	J. Monestier, assignor to R. F. Spangenberg.	St. Dennis, near Paris, France.	Mar. 30, 1858; France Jan. 12, 1857.
19312	Organs, &c., pedals for.	Thomas Robjohn	New York, N. Y.	Feb. 9, 1858.
20480	Ornaments to the ear, method of attaching	W. B. Carpenter.	Brooklyn, N. Y.	June 8, 1858.
19316	Painting and varnishing machine	Horace Thayer and Levi L. Martin.	Warsaw, N. Y.	Feb. 9, 1858.
20111	Paper, apparatus for damping.	C. A. Waterbury	New York, N. Y.	April 27, 1858.
19506	Paper-bags, machine for making	Jacob Keller.	Fairview, Pa.	Mar. 2, 1858.
20838	Paper-bags, machine for making	Francis Woll.	Bethlehem, Pa.	July 6, 1858.
21657	Paper-bags, &c., knives to cut.	Henry R. David.	New York, N. Y.	Oct. 5, 1858.
21775	Paper-clamp	Arnold Palmer.	Lee, Mass.	Oct. 12, 1858.
19748	Paper-file	W. Z. W. Chapman.	New York, N. Y.	Mar. 30, 1858.
22363	Paper-file	Edward K. Godfrey.	New York, N. Y.	Dec. 21, 1858.
20965	Paper-hangings, apparatus for hanging up and carrying off.	T. Van Deventer	New Brunswick, N. J.	July 20, 1858.
21710	Paper-hangings, machine for trimming the edges of.	John Waugh.	Elmira, N. Y.	Oct. 5, 1858.
20858	Paper, machine for cutting.	M. B. Bigelow	Boston, Mass.	July 13, 1858.
21172	Paper, machine for folding.	John North, assignor (through mesne assignments) to Steuben T. Bacon.	Middletown, Conn.	Aug. 10, 1858.
21411	Paper, machine for ruling.	J. C. Forman	Cleveland, Ohio.	Sept. 7, 1858.
20077	Paper, machine for wetting	John A. Lynch.	Boston, Mass.	April 27, 1858.
22009	Paper, wetting, apparatus for	Moses S. Beach.	Brooklyn, N. Y.	Nov. 9, 1858.
21584	Paper, &c., coloring, apparatus for	Charles Williams.	Philadelphia, Pa.	Sept. 21, 1858.
19831	Pen and pencil cases	John Cockburn.	New York, N. Y.	April 6, 1858.
20065	Pen-cleaner and holder	Thomas S. Hudson.	Boston, Mass.	April 27, 1858.
20741	Pen-fountain	Susan E. Taylor.	East Cambridge, Mass.	June 29, 1858.
21881	Pen-fountain	Josee Johnson	New York, N. Y.	Oct. 26, 1858.
22017	Pen-fountain	John C. Cutts.	Philadelphia, Pa.	Nov. 9, 1858.
21758	Pen-holder	Josee Johnson	New York, N. Y.	Oct. 12, 1858.
20056	Pencil-sharpener.	Walter K. Foster	Bangor, Me.	April 27, 1858.
20262	Pencil-sharpener.	Walter K. Foster	Bangor, Me.	May 18, 1858.
21649	Pencil-sharpener, slate.	William Burnet	New York, N. Y.	Oct. 5, 1858.



*List of patents for inventions, 1858.—CLASS XVIII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Data.
19191	Pencil-sharpeners, making blades for.....	Walter K. Foster .....	Bangor, Me. ....	Jan. 26, 1858.
20219	Pencils, slate, instrument for sharpening.....	Gerard Sickels .....	Brooklyn, N. Y. ....	May 11, 1858.
21679	Photographic bath.....	Bernhard Hufnagle .....	New York, N. Y. ....	Oct. 5, 1858.
21470	Photographic cameras, diaphragm for .....	C. C. Harrison and Joseph Schnitzer, assignors to C. C. Harrison.	New York, N. Y. ....	Sept. 7, 1858.
19252	Photographic cameras, plate-holders for .....	William and W. H. Lewis .....	New York, N. Y. ....	Feb. 2, 1858.
20401	Photographic cameras, plate-holders for .....	A. D. Bollens .....	Newburgh, N. Y. ....	June 1, 1858.
22158	Photographic plate-shield .....	Henry Bryant and R. D. O. Smith .....	Washington, D. C. ....	Nov. 30, 1858.
21829	Photographic shield.....	Ebenezer Gordon.....	New York, N. Y. ....	Oct. 19, 1858.
20213	Photographs, compound.....	Thomas Miltenberger .....	Bellevue, Ohio.....	May 11, 1858.
19626	Photolithography.....	James A. Cutting and L. H. Bradford .....	Boston, Mass.....	Mar. 16, 1858.
19081	Piano-forte .....	Spencer B. Driggs .....	New York, N. Y. ....	Jan. 12, 1858.
19857	Piano-forte action .....	Henry A. Seaman .....	New York, N. Y. ....	April 6, 1858.
20500	Piano-forte action .....	J. V. Marshall .....	Albany, N. Y. ....	June 8, 1858.
20595	Piano-forte action .....	Henry Steinway .....	New York, N. Y. ....	June 15, 1858.
21990	Pianos, pedal attachment for.....	William B. Stetson .....	Taylor, N. Y. ....	Nov. 2, 1858.
21192	Picture-frames, oval, machinery for preparing .....	William Gardner .....	New York, N. Y. ....	Aug. 17, 1858.
20670	Portfolio file .....	P. W. Toy.....	New York, N. Y. ....	June 22, 1858.
21902	Press, copying .....	Edwin and Jacob B. Platt.....	Clark county, Ga.....	Oct. 26, 1858.
21997	Press, hand, self-inking .....	Daniel Zuern and L. L. Bevan .....	Shamokin, Pa. ....	Nov. 2, 1858.
21976	Presses for embossing and figuring velvet, &c.....	John Nagele.....	Altoona, Pa. ....	Nov. 2, 1858.
20276	Presses for zincographic printing.....	G. H. Korff.....	Hoboken, N. J. ....	May 18, 1858.
21321	Printers' composing sticks .....	Alexander Calhoun .....	Hartford, Conn.....	Aug. 31, 1858.
20714	Printers, type case for.....	W. A. Hunter .....	Bryan, Ohio .....	June 29, 1858.
21429	Printing addresses on newspapers, &c., machine for.	James Lord.....	Pawtucket, Mass.....	Sept. 7, 1858.
21418	Printing and numbering press .....	George J. Hill .....	Buffalo, N. Y. ....	Sept. 7, 1858.
21723	Printing calico, rollers for .....	John Hope, assignor to himself and Thos. Hope.	Providence, R. I. ....	Oct. 5, 1858.
19797	Printing, casting types for .....	George Schaub.....	Hamburg, Germany .....	Mar. 30, 1858.
21148	Printing-ink rollers.....	Elisha Pratt .....	Salem, Mass.....	Aug. 10, 1858.

22136	Printing names or directions on packages, &c., machine for.	James Spencer	Toronto, Canada	Nov. 23, 1858.
19672	Printing-press	Henry A. Bills and Stephen W. Wood	West Winstead, Conn. . . . . Cornwall, N. Y. . . . .	Mar. 23, 1858; Eng-land Jan. 28, 1858.
19758	Printing-press	G. W. Davis	Seneca Falls, N. Y. . . . .	Mar. 30, 1858.
2 090	Printing-press	T. S. Reynolds	Athens, Ga. . . . .	Dec. 27, 1858.
20204	Printing-press	G. P. Gordon and F. O. Degener	New York, N. Y. . . . .	May 11, 1858.
20874	Printing-press	George P. Gordon	New York, N. Y. . . . .	July 13, 1858.
21080	Printing-press	F. B. Nichols	Morrisania, N. Y. . . . .	Aug. 3, 1858.
21154	Printing-press	E. E. Sneider	New York, N. Y. . . . .	Aug. 10, 1858.
21228	Printing-press	Daniel Wolfe	Dixon, Ohio . . . . .	Aug. 17, 1858.
21528	Printing-press	Ervin B. Tripp	New York, N. Y. . . . .	Sept. 14, 1858.
21484	Printing-press	James A. Campbell	New Orleans, La. . . . .	Sept. 14, 1858.
22027	Printing-press	Charles Montague	Hartford, Conn. . . . .	Nov. 9, 1858.
22010	Printing-press	Moses S. Beach	Brooklyn, N. Y. . . . .	Nov. 9, 1858.
22181	Printing-press	David E. James	Utica, N. Y. . . . .	Nov. 30, 1858.
22414	Printing-press	S. R. Cotton	Green Bay, Wis. . . . .	Dec. 28, 1858.
21591	Printing-press, automatic paper-feeder for.	William Bullock, assignor to George W. Taylor.	Newark, N. J. . . . .	Sept. 21, 1858.
20039	Printing-press, card	W. W. Clarkson	Baltimore, Md. . . . .	April 27, 1858.
22011	Printing-press, feeding out paper from	Moses S. Beach	Brooklyn, N. Y. . . . .	Nov. 9, 1858.
20556	Printing-press, hand	Charles A. Haskins	New York, N. Y. . . . .	June 15, 1858.
21980	Printing-press, hand	James N. Phelps	New York, N. Y. . . . .	Nov. 2, 1858.
21859	Printing-press, paper-feeder for	Lemuel T. Wells	Cincinnati, Ohio . . . . .	Oct. 19, 1858.
20179	Printing-press, tympan for	L. T. Wells	Cincinnati, Ohio . . . . .	May 4, 1858.
19881	Printing-stamp, hand	Benjamin B. Stanton	New York, N. Y. . . . .	April 6, 1858.
22358	Ring, finger, extension	Samuel Friend and George Seiler	New York, N. Y. . . . .	Dec. 21, 1858.
20273	Signs	James Harrison	Albany, N. Y. . . . .	May 18, 1858.
19970	Signs, door-plates, &c.	John T. Wellman, assignor to Charles O. Thompson.	Lowell, Mass. . . . .	April 13, 1858.
21798	Spelling-block	Samuel L. Hill, assignor to himself, A., Palmer, and A. S. Doane.	New York, N. Y. . . . .	Oct. 12, 1853.
20922	Stamp, hand	W. Morse and J. Hughes, assignors to G. H. and A. T. Devereux and O. W. and E. E. Barrett.	Boston, Mass. . . . .	July 13, 1858.
20217	Stamp, hand, self-making.	S. E. Pettee and	Mansfield, Mass. . . . .	May 11, 1858.
22272	Stencil	E. G. Cobb	Foxboro', Mass. . . . .	Dec. 14, 1858.
19943	Stencil-pallet	R. A. Adams	St. Louis, Mo. . . . .	April 13, 1858.
		J. H. Merriam	Boston, Mass. . . . .	



*List of patents for inventions, 1858.—CLASS XVIII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20081	Stereotype-plates, method of preparing.....	John H. McElheran.....	Brooklyn, N. Y. ....	April 27, 1858.
21341	Studs, &c., lock-joint fastener for.....	Ira A. Ives.....	New York, N. Y.....	Aug. 31, 1858.
19645	Types, picture .....	John McElheran.....	Brooklyn, N. Y.....	Mar. 16, 1858.
22423	Typographer, mechanical .....	Henry Harger .....	Delhi, Iowa.....	Dec. 28, 1858.

*CLASS XIX.—FIRE-ARMS AND IMPLEMENTS OF WAR, and parts thereof, including the manufacture of shot and gunpowder.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21219	Bomb-lance .....	Rufus Sibley.....	Greenville, Conn.....	Aug. 18, 1858.
22054	Bomb-lance .....	A. F. and J. H. Andrews.....	Avon, Conn.....	Nov. 16, 1858.
21463	Bullet-machine. ....	Calvin Young .....	Auburn, N. Y.....	Sept. 7, 1858.
21505	Bullet-machine .....	John Aris Knight.....	St. Louis, Mo.....	Sept. 14, 1858.
22286	Bullets, hollow, machine for making.....	Richard Gornall .....	Baltimore, Md.....	Dec. 14, 1858.
20608	Cannon, breech-loading .....	J. H. Murrill, assignor to himself, J. Flynn, and P. Emrich.....	Baltimore, Md.....	June 15, 1858.
22299	Cannon, breech-loading.....	Edward Marshall.....	New York, N. Y. ....	Dec. 14, 1858.
22325	Cannon, breech-loading.....	Edward S. Wright and Theodore P. Gould.....	Buffalo, N. Y.....	Dec. 14, 1858.
22427	Cannon, breech-loading.....	John W. Hollensbury .....	Alexandria, Va.....	Dec. 28, 1858.
20727	Cartridge.....	George W. Morse .....	Baton Rouge, La. ....	June 29, 1858.
20214	Cartridge-case .....	George W. Morse .....	Baton Rouge, La. ....	May 11, 1858.
21253	Cartridge for fire-arms.....	E. Gomez and W. Mills.....	New York, N. Y.....	Aug. 24, 1858.
19327	Fire-arm .....	F. D. Newbury, assignor to Richard V. De Witt, jr.....	Albany, N. Y.....	Feb. 9, 1858.
20041	Fire-arm, breech-loading.....	Calvin Cox.....	Coxville, N. C. ....	April 27, 1858.
20073	Fire-arm, breech-loading.....	Thomas Lee .....	New York, N. Y.....	April 27, 1858.
20503	Fire-arm, breech-loading.....	George W. Morse .....	Baton Rouge, La.....	June 8, 1858.

20825	Fire-arm, breech-loading.....	George H. Soule.....	Jersey City, N. J. ....	July 6, 1858.
20776	Fire-arm, breech-loading.....	E. Brooks, and G. Walker .....	Philadelphia, Pa.....	July 6, 1858.
20954	Fire-arm, breech-loading.....	James H. Merrill.....	Baltimore, Md.....	July 20, 1858.
21523	Fire-arm, breech-loading.....	E. T. Starr.....	New York, N. Y. ....	Sept. 14, 1858.
21802	Fire-arm, breech-loading.....	John P. Schenkl, assignor to himself and Edward A. Dana.	Worcester, Mass.....	Oct. 12, 1858.
22094	Fire-arm, breech-loading.....	John C. Symms.....	Watertown Arsenal, Mass..	Nov. 16, 1858.
22348	Fire-arm, breech-loading revolving .....	E. Claude .....	New York, N. Y. ....	Dec. 21, 1858.
20129	Fire-arm, continuous priming for.....	Daniel G. Rollin, assignor to George G. Martin.	New York, N. Y. ....	April 27, 1858.
19213	Fire-arm, nipple-guard of.....	David W. Smith.....	Boston, Mass.....	Jan. 26, 1858.
19387	Fire-arm, repeating .....	Charles C. Terrel.....	Shalesburg, Wis.....	Feb. 16, 1858.
19553	Fire-arm, repeating .....	A. C. Falvre.....	Meadville, Pa.....	Mar. 9, 1858.
21149	Fire-arm, repeating .....	F. B. Prindle.....	New Haven, Conn.....	Aug. 10, 1858.
19739	Fire-arm, revolving .....	F. D. Newbury, assignor to Richard V. De Witt, jr.	Albany, N. Y.....	Mar. 23, 1858.
19961	Fire-arm, revolving.....	Rollin White.....	Hartford, Conn .....	April 13, 1858.
20160	Fire-arm, revolving.....	B. F. Joslyn .....	Worcester, Mass .....	May 4, 1858.
20144	Fire-arm, revolving.....	Samuel Colt.....	Hartford, Conn .....	May 4, 1858.
20496	Fire-arm, revolving.....	Moses Kinsey .....	Newark, N. J.....	June 8, 1858.
20607	Fire-arm, revolving.....	F. H. Harrington, assignor to Horace Smith and Daniel B. Nesson.	Springfield, Mass.....	June 15, 1858.
20765	Fire-arm, revolving.....	F. D. Newbury, assign'r to R. V. De Witt, jr.	Albany, N. Y.....	June 29, 1858; additional improvement Sept. 28, 1858.
21054	Fire-arm, revolving.....	E. A. Raymond and C. Robetaille, assignors to themselves, J. B. Richards, and T. K. Austin.	Brooklyn, N. Y.....	July 27, 1858.
21215	Fire-arm, revolving.....	Joseph Rider.....	Newark, Ohio .....	Aug. 17, 1858.
21188	Fire-arm, revolving.....	W. H. Elliott.....	Plattsburgh, N. Y .....	Aug. 17, 1858.
21400	Fire-arm, revolving.....	Ethan Allen.....	Worcester, Mass .....	Sept. 7, 1858.
21478	Fire-arm, revolving.....	Fordyce Beals.....	New Haven, Conn.....	Sept. 14, 1858.
21623	Fire-arm, revolving.....	William Palmer.....	New York, N. Y .....	Sept. 28, 1858.
21730	Fire-arm, revolving.....	Thomas K. Austin.....	New York, N. Y .....	Oct. 12, 1858.
22005	Fire-arm, revolving.....	Ethan Allen .....	Worcester, Mass .....	Nov. 9, 1858.
22412	Fire-arm, revolving.....	John W. Cochran.....	New York, N. Y .....	Dec. 28, 1858.
19868	Fire-arm, revolving, removable rammer of .....	Henry S. North.....	Middletown, Conn.....	April 6, 1858.
19328	Gun, cane .....	John F. Thomas, assignor to himself and Samuel Remington.	Ilion, N. Y .....	Feb. 9, 1858.



*List of patents for inventions, 1858—CLASS XIX.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20597	Gun-carriage.....	G. J. Van Brunt.....	Dedham, Mass. ....	June 15, 1858.
22377	Gun-carriages, quoin for .....	David D. Porter.....	U. S. Navy .....	Dec. 21, 1858.
21109	Gun, centrifugal .....	C. B. Thayer, assignor to himself and Chas. Robinson.	Boston, Mass .....	Aug. 3, 1858.
20757	Gun-lock, double-acting.....	Elias Brey, assignor to himself and J. L. Swartley.	Pennsburgh, Pa.....	June 29, 1858.
19121	Gun, lock of double-barrel.....	Henry Barnes.....	Wilson, N. C .....	Jan. 19, 1858.
19063	Gun, needle .....	William Burghart .....	Lawrence, Mass .....	Jan. 12, 1858.
19086	Gun, spring .....	Albert Gernunder .....	Springfield, Mass .....	Jan. 12, 1858.
19674	Gun, walking-stick .....	Robert R. Beckwith.....	New York, N. Y .....	Mar. 23, 1858.
21773	Ordnance, compound shell fer. ....	Lorenzo B. Olmstead .....	Binghamton, N. Y .....	Oct. 12, 1858.
20229	Ordnance, repeating .....	Grey Utley .....	Louisburg, N. C .....	May 11, 1858.
19342	Powder flask.....	J. H. Breckenridge .....	Meriden, Conn.....	Feb. 16, 1858.
20315	Rifle, breech-loading.....	C. W. Alexander .....	Moorefield, Va.....	May 25, 1858.
21924	Rifle, breech-loading, patching balls for .....	Lucius H. Gibbs, assignor to Gibbs Arms Company.	New York, N. Y .....	Oct. 26, 1858.
19505	Shell, eccentric explosive .....	William W. Hubbell.....	Philadelphia, Pa .....	Mar. 2, 1858.
20250	Shot, making.....	Alfred Booth.....	New York, N. Y .....	May 18, 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22293	Bandages -----	N. Jensen -----	Washington, D. C. -----	Dec. 14, 1858.
22298	Bath, shower -----	Joseph Mansfield -----	Jefferson, Wis -----	Dec. 14, 1858.
21138	Bathing-apparatus -----	Frederick Kraemer -----	Brooklyn, N. Y -----	Aug. 10, 1858.
22080	Breast-pipes -----	Thomas Lewis -----	Malden, Mass -----	Nov. 16, 1858.
21790	Corn-eradicator -----	Corydon Wheat -----	Geneva, N. Y -----	Oct. 12, 1858.
19858	Dental-plate, atmospheric pressure -----	Morris Levett -----	New York, N. Y -----	April 6, 1858.
21562	Dentists' chair -----	Alexander M. Holmes -----	Morrisville, N. Y -----	Sept. 21, 1858.
19052	Dentists' operating chair -----	George W. Tripp -----	Auburn, N. Y -----	Jan. 5, 1858.
22063	Forceps, tooth, mode of connecting electro-magnetic apparatus with. -----	James J. Clark -----	Philadelphia, Pa -----	Nov. 16, 1858.
22018	Lacteal instrument -----	C. H. Davidson -----	Charlestown, Mass -----	Nov. 9, 1858.
21289	Legs, artificial, attachments to -----	O. D. Wilcox -----	Elmira, N. Y -----	Aug. 24, 1858.
22362	Medicated fabrics -----	Henry Glynn -----	Baltimore, Md -----	Dec. 21, 1858.
20896	Medicated vapor apparatus -----	A. F. Rose -----	Brooklyn, N. Y -----	July 13, 1858.
21291	Obstetrical chair -----	C. C. Wingo -----	Newport, Va -----	Aug. 24, 1858.
21189	Pessary -----	William Elmer -----	New York, N. Y -----	Aug. 17, 1858.
20754	Plate, use of dentists' pattern -----	William M. Wright -----	Pittsburg, Pa -----	June 29, 1858.
19025	Splints, attachment of adjustable foot-boards to -----	John Gruol -----	New York, N. Y -----	Jan. 5, 1858.
21872	Splints, extension -----	William Bunce -----	Sullivan, Ohio -----	Oct. 26, 1858.
19916	Teeth, bases for artificial -----	George Dieffenbach -----	New York, N. Y -----	April 13, 1858.
20905	Teeth, extracting, apparatus as aids in -----	Charles C. Thomas -----	Natchez, Miss -----	July 13, 1858.
21853	Teeth, method of applying electricity during extraction of. -----	Jacob S. Simmerman -----	Glassborough, N. J -----	Oct. 19, 1858.
20390	Teeth, method of extracting -----	Jerome B. Francis, assignor through mesne assignments to James J. Clark. -----	Philadelphia, Pa -----	May 25, 1858.
19914	Truss-pad -----	William F. Dailey -----	Baltimore, Md -----	April 13, 1858.
20444	Truss-pad -----	H. H. Reynolds -----	Buffalo, N. Y -----	June 1, 1858.
21548	Truss-pad -----	Cornelius Campbell -----	St. Louis, Mo -----	Sept. 21, 1858.
21767	Truss-pad -----	Lazarus B. McLain, sr -----	New Lisbon, Ohio -----	Oct. 12, 1858.



## CLASS XXI.—WEARING APPAREL, ARTICLES FOR THE TOILET, &amp;c., including instruments for manufacturing.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19932	Bonnet-frame..... Bonnets and other articles of varying thickness, machinery for pressing. (See Class III, letter B.)	Whitten E. Kidd .....	New York, N. Y. ....	April 13, 1858.
22242	Bustle .....	Charles A. Pestley .....	Jersey City, N. J. ....	Dec. 7, 1858.
20865	Bustles and skirts .....	H. N. Daggett.....	Attleboro', Mass. ....	July 13, 1858.
22133	Bustles for ladies' dresses .....	George V. and Edwin A. Pierce .....	New York, N. Y. ....	Nov. 23, 1858.
20707	Button-fastening .....	Lester Goodwin.....	New York, N. Y. ....	June 29, 1858.
20632	Button-holes, implement for cutting .....	Charles Currier .....	Providence, R. I. ....	June 22, 1858.
19120	Buttons .....	Jean Felix Bapteros .....	Paris, France. ....	Jan. 19, 1858; France Jan. 17, 1857.
20194	Buttons, sleeve, fasteners for. ....	Henry Cogswell .....	Providence, R. I. ....	May 11, 1858.
22443	Corsets.....	Ann S. McLean.....	Williamsburg, N. Y. ....	Dec. 28, 1858.
19418	Diapers, infants, substitute for .....	J. H. Hall .....	Kittanning, Pa. ....	Feb. 23, 1858.
22366	Fans, portable, manufacture of.....	John C. Hall.....	Fayette, Miss. ....	Dec. 21, 1858.
19271	Garments, machine for drafting.....	James M. Weston.....	Chesterfield, N. Y. ....	Feb. 2, 1858.
19228	Hair in curl, ladies', clamp for holding .....	Francis Arnold .....	Middle Haddam, Conn. ....	Feb. 2, 1858.
20069	Hose-supporter.....	Asa Johnson .....	Cairo, N. Y. ....	April 27, 1858.
20834	Muff, ear, cheek, and chin.....	William P. Ware .....	Cincinnati, Ohio .....	July 6, 1858.
20708	Pantaloon .....	B. J. Greeley.....	Springfield, Mass. ....	June 29, 1858.
19280	Pin, diaper or shawl.....	John G. Klinger, assignor to Ignatius Sturn.....	Jersey City, N. J. ....	Feb. 2, 1858.
21966	Pin, shield .....	Josee Johnson.....	New York, N. Y. ....	Nov. 2, 1858.
22159	Scissors .....	Joel Bryant .....	Brooklyn, N. Y. ....	Nov. 30, 1858.
	Scissors, manufacture of. (See Class II.)			
21369	Shears .....	J. H. Roome .....	New York, N. Y. ....	Aug. 31, 1858.
22039	Shirt-bosom folders .....	John Stevens.....	New York, N. Y. ....	Nov. 9, 1858.
22442	Shirt-stud .....	Charles McIntyre.....	Newark, N. J. ....	Dec. 28, 1858.
22375	Shirts, drafting.....	John Peckham .....	New Haven, Conn. ....	Dec. 21, 1858.
21839	Skirt, hoop.....	George Mallory .....	Watertown, Conn. ....	Oct. 19, 1858.
20501	Skirt-hoop.....	David Holmes.....	Westfield, Mass. ....	June 15, 1858; reissued Aug. 17, 1858.



20681	Skirt-hoop .....	R. J. Mann, assignor to L. A. Osborn and I. J. Vincent.	Brooklyn, N. Y. ....	June 22, 1858.
20720	Skirt-hoop.....	Martin Landenberger.....	Philadelphia, Pa.....	June 29, 1858.
20801	Skirt-hoop .....	Austin Kelley .....	New York, N. Y.....	July 6, 1858.
22385	Skirt-hoop, buckle for .....	John Stevens and James Hanley .....	New York, N. Y.....	Dec. 21, 1858.
20598	Skirt-hoop, clasp for.....	Thomas Wallace, jr.....	Ansonia, Conn.....	June 15, 1858.
21373	Skirt-hoop, clasp for.....	A. Smart.....	New York, N. Y.....	Aug. 31, 1858.
21747	Skirt-hoop, fastening for .....	Alexander Douglas and Samuel S. Sherwood.	New York, N. Y.....	Oct. 12, 1858.
22355	Skirt-hoop, slide and fastening for .....	Alexander Douglas and Samuel S. Sherwood.	New York, N. Y.....	Dec. 21, 1858.
21709	Skirt-hoop, slide for.....	William M. Warren .....	New York, N. Y.....	Oct. 5, 1858.
21581	Skirt, ladies', eyelet fastening for.....	W. S. Thomson .....	New York, N. Y.....	Sept. 21, 1858.
21479	Skirt, ladies' hoop .....	Samuel Beberdy .....	Philadelphia, Pa.....	Sept. 14, 1858.
22197	Skirt, ladies' hoop .....	Samuel Peberdy .....	Philadelphia, Pa.....	Nov. 30, 1858.
22426	Skirt, ladies' hooped .....	John Holmes.....	Boston, Mass.....	Dec. 28, 1858.
21806	Skirt, skeleton.....	E. G. Atwood .....	Derby, Conn.....	Oct. 19, 1858.
22051	Skirt, skeleton-hoop .....	R. J. Mann, assignor to L. A. Osborn and I. J. Vincent.	Brooklyn, N. Y.....	Nov. 9, 1858.
19576	Skirt-supporter .....	N. C. Nelson.....	Concord, N. H.....	Mar. 9, 1858.
19946	Skirts, cords for .....	David Perry.....	Godwinsville, N. J.....	April 13, 1858; ante-dated Oct. 13, 1857.
22308	Skirts, hoop, forceps for fastening clasps on.....	George D. and Samuel A. and Charles L. Russell.	Birmingham, Conn.....	Dec. 14, 1858.
21324	Sun-shade .....	Anthony G. Davis .....	Watertown, Conn.....	Aug. 31, 1858.
20424	Suspender, shoulder-brace.....	B. J. Greeley.....	Springfield, Mass.....	June 1, 1858.
20326	Tailor's measure.....	W. R. Stace.....	Rochester, N. Y.....	July 6, 1858.
20519	Tailor's pressing-machine.....	L. B. Storrs.....	Canton, N. Y.....	June 8, 1858.
20879	Tailor's shears .....	Rochus Heinisch.....	Newark, N. J.....	July 13, 1858.
22124	Tournures .....	Benjamin Johnson .....	Philadelphia, Pa.....	Nov. 23, 1858.
19998	Umbrella.....	Henry Kurth.....	Brooklyn, N. Y.....	April 20, 1858.
21313	Umbrella .....	Charles Boornicke .....	Baltimore, Md.....	Aug. 31, 1858.
21855	Umbrella.....	Henry Steele.....	Jersey City, N. J.....	Oct. 19, 1858.
22033	Umbrella and head-rest combined. (See Class X, letter H)	Frederick Reichhold .....	New York, N. Y.....	Nov. 9, 1858.
22142	Umbrellas and parasols, frames for.....	Edward Young.....	Philadelphia, Pa.....	Nov. 23, 1858.
22274	Wristband-fastener.....	Daniel S. Baker .....	Providence, R. I.....	Dec. 14, 1858.



CLASS XXII.—MISCELLANEOUS.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19527	Alarm, burglars'	William D. Wright.....	Baltimore, Md.....	Mar. 2, 1858.
19973	Alarm, burglars'	H. Hersch, B. Bauman, and H. C. Locher.....	Lancaster, Pa.....	April 13, 1858.
21555	Alarm, burglars'	A. W. Decrow .....	Bangor, Maine.....	Sept. 21, 1858.
21849	Alarm, burglars'	Henry R. Robbins .....	Baltimore, Md.....	Oct. 19, 1858.
22024	Alarm, burglars'	N. Jensen .....	Washington, D. C.....	Nov. 9, 1858.
20852	Alarm-clock, burglars'	G. D. Sargent, assignor to himself and T. R. Abbott.....	Boston, Mass.....	July 6, 1858.
20819	Alarm-clock, burglars'	John Matthewman.....	New Haven, Conn.....	July 6, 1858.
19295	Alarm-lock.....	Horace L. Hervey.....	Windsor, Conn.....	Feb. 9, 1858.
19926	Alarm-lock.....	Horace L. Hervey.....	Windsor, Conn.....	April 13, 1858.
21457	Alarm-lock.....	Jonathan W. Wells .....	Pittsburg, Pa.....	Sept. 7, 1858.
20333	Alarm-lock, burglars'	Addison Corey.....	Casstown, Ohio.....	May 25, 1858.
21339	Alarm, prison, apparatus for .....	William O. Hills.....	Nottingham, N. H.....	Aug. 31, 1858.
19495	Alarm, sash-balance.....	Thomas Denham and Joseph W. Briggs...	Cleveland, Ohio.....	Mar. 2, 1858.
19196	Alarm, tidal.....	Abel Hildreth .....	Thomaston, Maine.....	Jan. 26, 1858.
21719	Aquaria, construction of .....	J. Chilcott and James Scrimgeour, assignors to themselves and George F. Taylor.....	Brooklyn, N. Y .....	Oct. 5, 1858.
22619	Aquarium.....	Elijah D. Davis.....	Brooklyn, N. Y .....	Nov. 9, 1858.
22176	Ashes and garbage safe.....	William Gee.....	New York, N. Y.....	Nov. 30, 1858.
20085	Awning, metal .....	William O. Parisen.....	New York, N. Y.....	April 27, 1858.
20256	Ballot-box .....	Allan Cummings.....	New York, N. Y.....	May 18, 1858.
21684	Ballot-box.....	Samuel C. Jollie.....	New York, N. Y.....	Oct. 5, 1858.
19384	Bank-check canceller.....	William M. Simpson.....	Newark, N. J.....	Feb. 16, 1858.
19229	Basket-splints, tool for manufacturing .....	Artemas Baker.....	Templeton, Mass.....	Feb. 2, 1858.
22371	Bench, folding.....	Tristram L. Lewis .....	Kendall's Mills, Maine.....	Dec. 21, 1858.
21444	Billiard-balls .....	C. B. & J. & W. C. Rogers.....	Deep River, Conn.....	Sept. 7, 1858.
21159	Billiard-cushion .....	W. K. Winant .....	Brooklyn, N. Y.....	Aug. 10, 1858.
22001	Billiard-table .....	D. D. Winant, assignor to W. R. Winant...	New York, N. Y.....	Nov. 2, 1858.
22064	Billiard-table .....	H. W. Collender .....	New York, N. Y.....	Nov. 16, 1858.
20156	Billiard-table cushion.....	George W. Holman.....	New York, N. Y.....	May 4, 1858.

22263	Billiard-table cushion.....	John E. Came, assignor to himself and James E. Came.	Boston, Mass.....	Dec. 7, 1858.
19101	Billiard table, cushion for.....	Michael Phelan, assignor to H. W. Collender	New York, N. Y. ....	Jan. 12, 1858.
19074	Billiard table, cushion for.....	H. W. Collender .....	New York, N. Y. ....	Jan. 12, 1858.
22020	Billiard table, cushion for.....	Levi Decker .....	Bergen, N. J. ....	Nov. 9, 1858.
19755	Billiard table, folding.....	Charles Croley .....	Cincinnati, Ohio.....	Mar. 30, 1858.
20548	Billiard table, pocket supporter for .....	J. E. Came and S. Havens.....	Boston, Mass.....	June 15, 1858.
19546	Billiard table tops or beds .....	Charles Croley .....	Cincinnati, Ohio.....	Mar. 9, 1858.
	Bottle for containing mercury. (See Class IV, letter M.)			
22186	Bottle, screw-neck.....	John L. Mason .....	New York, N. Y. ....	Nov. 30, 1858.
19323	Bottle-stopper.....	J. B. Williams.....	New York, N. Y. ....	Feb. 9, 1858.
22370	Bottle-stopper.....	Thomas Lewis.....	Malden, Mass.....	Dec. 21, 1858.
20778	Bottle, stopper for.....	M. C. Cronk.....	Auburn, N. Y. ....	July 6, 1858.
20843	Bottle, stopper for.....	J. Ewing, assignor to F. V. Rushton .....	New York, N. Y. ....	July 6, 1858.
	Bottles, apparatus for making glass stoppers for. (See Class XV.)			
	Bottles, glass, mould for. (See Class XV, letter G.)			
20520	Bottles, jars, &c., metallic caps for.....	W. J. Stevenson .....	New York, N. Y. ....	June 8, 1858.
20113	Bottles, machine for washing.....	W. B. White and John A. Whitford.....	Saratoga Springs, N. Y. ....	April 27, 1858.
20240	Candy-machine.....	George K. Farrington and Samuel Brown, jr., assignors to themselves and David B. Tiffany.	Xenia, Ohio.....	May 11, 1858.
21384	Casket, travelling.....	T. R. Timby .....	Medina, N. Y. ....	Aug. 31, 1858.
21677	Checks, baggage.....	Edmund Hoole.....	Mount Vernon, N. Y. ....	Oct. 5, 1858.
19717	Cigar-lighting cinders.....	Henrich Reimann.....	Hartford, Conn.....	Mar. 23, 1858.
19580	Cigar-lighting cinders, apparatus for containing and lighting.	Henrich Reimann.....	Hartford, Conn.....	Mar. 9, 1858.
21558	Cigar-wrapper.....	Henry Durell .....	Morrisania, N. Y. ....	Sept. 21, 1858.
19746	Cigars .....	Thomas Blanchard.....	Boston, Mass.....	Mar. 30, 1858.
19341	Cigars, machine for making.....	Louis Beauché .....	Paris, France.....	Feb. 16, 1858; France, May 22, 1856.
21704	Cigars, wrappers for.....	James S. Suter and George M. Palmer .....	Baltimore, Md.....	Oct. 5, 1858.
19503	Coffin.....	Daniel and Solomon E. Hooker .....	West Poultney, Vt. ....	Mar. 2, 1858.
20095	Coffins, constructing.....	Isaac C. Shuler.....	Amsterdam, N. Y. ....	April 27, 1858.
20770	Corks, machine for cutting.....	R. P. Abernethy, assignor to Union Cork Manufacturing Company.	Cincinnati, Ohio.....	July 6, 1858.
20771	Corks, machine for cutting.....	R. P. Abernethy and M. M. Wombaugh .....	Cincinnati, Ohio.....	July 6, 1858.



*List of patents for inventions, 1858—CLASS XXII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21944	Corks, machine for cutting-----	Edward Conroy-----	Boston, Mass-----	Nov. 2, 1858.
19109	Creepers-----	Leouhardt Witting-----	Philadelphia, Penn-----	Jan. 12, 1858.
21955	Cup, drinking-----	Louis Grosholz-----	Philadelphia, Penn-----	Nov. 2, 1858.
19791	Desk-seat for schools-----	Charles Perley-----	New York, N. Y-----	Mar. 30, 1858.
20487	Desk, writing-----	J. H. Grimsley and P. J. Aukney-----	New Lexington, Ohio-----	June 8, 1858.
21249	Desk, writing-----	John W. Fiester-----	New Lexington, Ohio-----	Aug. 24, 1858.
20859	Door-plate-----	Jeremy W. Bliss-----	Hartford, Conn-----	July 13, 1858.
20100	Drawer for closets, bureaus, &c-----	H. R. Taylor-----	Roxbury, Mass-----	April 27, 1858.
20703	Eels, apparatus for skinning-----	Adam Emeigh-----	Jerusalem, N. Y-----	June 29, 1858.
21282	Fire-escape-----	Owen Sweeney-----	Brooklyn, N. Y-----	Aug. 24, 1858.
20752	Fire-ladder-----	Joseph Welte-----	Buffalo, N. Y-----	June 29, 1858.
20961	Fireman's trumpet-----	William Staehlen-----	Williamsburgh, N. Y-----	July 20, 1858.
20343	Fish, apparatus for catching-----	Jacob Garl-----	Suffield, Ohio-----	May 25, 1858.
20725	Fish at sea, net for catching-----	Benjamin Merritt, jr-----	Charlestown, Mass-----	June 29, 1858.
20309	Fishing-rods, tips for-----	J. C. Underwood and T. J. Bargis-----	Richmond, Ia-----	May 18, 1858.
20539	Fog-signal machine. (Sec Class VIII, letter S.)	John G. Baker-----	New Brunswick, N. J-----	June 15, 1858.
19205	Glaziers' pins, machine for cutting-----	Horatio Pollard-----	Boston, Mass-----	Jan. 26, 1858.
19761	Heel spur to prevent slipping on ice-----	J. J. Eshleemann-----	Lancaster, Penn-----	Mar. 30, 1858.
22210	Horse and cattle tie, self-loosening-----	Hiram Van Steenburgh and Joel Egnor-----	Catskill, N. Y-----	Nov. 30, 1858.
19195	Ice, apparatus for hoisting and storing-----	R. W. Heywood-----	Baltimore, Md-----	Jan. 26, 1858.
20322	Ice in rivers, machine for planing away-----	W. G. Brower-----	Staatsburgh, N. Y-----	May 25, 1858.
22403	Ice-pick-----	John L. Rowe, assignor to Frederick Stevens-----	New York, N. Y-----	Dec. 21, 1858.
19376	Ice-spur-----	Charles Monnin-----	Buffalo, N. Y-----	Feb. 16, 1858.
22390	Labels for trees, &c-----	William W. Wade and Francis T. Cordis-----	Long Meadow, Mass-----	Dec. 21, 1858.
19578	Ladder, fire-escape. (See Class V, letter F.)	Albert Potts-----	Philadelphia, Penn-----	Mar. 9, 1858.
21716	Letter boxes to lamp-posts, mode of attaching metallic.	Algernon S. Wright-----	Lawrence, Mass-----	Oct. 5, 1858.
21794	Marks on cloth, &c., trade, machine for stamping	E. G. Byam and-----	Boston, Mass-----	} Oct. 12, 1858,
	Match cards, rack for holding comb-----	B. E. Parkhurst, assignors to E. and E. G. Byam and S. A. Carlton,	Brunswick, Me-----	

19608	Match-machine.....	Samuel Miller and.....	Hammond, N. Y.....	Mar. 9, 1858.
21770	Match-safe, friction, portable and water-proof.....	William Gates, jr.....	Frankfort, N. Y.....	Oct. 12, 1858.
21082	Money-table.....	Assignors to William Gates, jr.		Aug. 3, 1858.
20125	Net, fishing.....	Platt Merrill.....	Port Sanilac, Mich.....	April 27, 1858.
20235	Net, fly.....	William Painter.....	Wilmington, Del.....	
21274	Packages for dry goods.....	Thomas Hall, assignor to Thomas Hall & Co.	Gloucester, Mass.....	
20715	Picket, screw.....	Robert Wilson.....	Milton, Pa.....	May 11, 1858.
19832	Pocket-books, &c., method of securing.....	Alexander Robertson.....	Middlesex Co., England.....	Aug. 24, 1858; Eng- land, June 26, 1855.
20055	Ruler.....	Oliver Hyde.....	Benicia, Cal.....	June 29, 1858.
21585	Skate-irons.....	Oliver Cox.....	Alexandria, Va.....	April 6, 1858.
21973	Smoking-tube.....	Thomas Fisler.....	Camden, N. J.....	April 27, 1858.
21473	Stamping milk-cans, apparatus for.....	C. A. and R. Williams and G. A. Morse.....	Bloomfield, Me.....	Sept. 21, 1858.
20306	Stamps to letters, post office, machine for affix- ing.....	Charles Mathews.....	New York, N. Y.....	Nov. 2, 1858.
20303	Street-sweeping machine.....	William M. Storm, assignor to A. Cum- mings.....	New York, N. Y.....	Sept. 7, 1858.
21743	Streets, machine for sweeping.....	George K. Snow.....	Watertown, Mass.....	May 18, 1858.
21933	Swords, method of hanging.....	A. J. Roberts.....	Boston, Mass.....	May 18, 1858.
21703	Tacks, leathering, machine for. (See Class XVI, letter L.)	Amzi Crane.....	Newark, N. J.....	Oct. 12, 1858.
19856	Ticket-holder.....	Jonathan Ball.....	Utica, N. Y.....	Nov. 2, 1858.
20199	Tobacco, machine for crimping.....	J. W. Shaler.....	New York, N. Y.....	Oct. 5, 1858.
20075	Tobacco, pipes and cigar-holds or mouth-pieces for smoking.....	Rhodolphus Kinsley.....	Springfield, Mass.....	April 6, 1858.
22078	Toy.....	James W. Evans.....	New York, N. Y.....	May 11, 1858.
21647	Trap, animal.....	Conrad Liebrich.....	Philadelphia, Pa.....	April 27, 1858.
21676	Trap, animal, constructing.....	C. Jillson.....	Worcester, Mass.....	Nov. 16, 1858.
19382	Trap, animal, constructing.....	Moses H. Biddle.....	Mount Carmel, Ill.....	Oct. 5, 1858.
20091	Trap, fly.....	Edmund Hill.....	Cincinnati, Ohio.....	Oct. 5, 1858.
21646	Trap, fly.....	Thomas M. Scott.....	La Grange, Ga.....	Feb. 16, 1858.
19825	Trap, fly.....	William Riley.....	Madison Co., Miss.....	April 27, 1858.
	Trap for animals.....	Bryan Atwater.....	Berlin, Ct.....	Oct. 5, 1858.
		John L. Brabyn.....	New York, N. Y.....	April 6, 1858.



*List of patents for inventions, 1858—CLASS XXII.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20873	Trap for animals.....	Samuel Gibson.....	Mastic Township, Pa.....	July 13, 1858.
21302	Trap for animals.....	Frederick Reutha, assignor to Moritz Loth.....	Hartford, Ct.....	Aug. 24, 1858.
21454	Trap for animals.....	Rufus M. Turner.....	Woodland, Mich.....	Sept. 7, 1858.
21978	Trap for animals.....	Rufus L. Payne.....	Halifax, Va.....	Nov. 2, 1858.
19355	Trap for catching rats and other animals.....	Earl D. Fink.....	Columbus, Ohio.....	Feb. 16, 1858.
20042	Trap, rat.....	W. H. Cox.....	Virden, Ill.....	April 27, 1858.
21726	Trap, roach.....	A. N. Shell, assignor to W. S. Wood and T. N. Shell.....	Richmond, Va.....	Oct. 5, 1858.
20931	Twine-box.....	W. R. Bennett and C. Storer.....	Boston, Mass.....	July 20, 1858.
19875	Wallet-fastener.....	J. T. Sargent.....	Carlinville, Ill.....	April 6, 1858.
20299	Whalebone, manufacture of artificial.....	C. Poppenhusen.....	New York, N. Y.....	May 18, 1858.
21740	Willow, machine for peeling.....	George J. Colby.....	Waterbury, Vt.....	Oct. 12, 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
603	Acid, sulphuric, manufacture of-----	A. Monnier-----	Camden, N. J -----	Aug. 11, 1857 ; reissued Oct. 6, 1857.	Sept. 21, 1858.
551	Arithmometer for adding----- Bagasse furnaces. (See Furnaces.)	O. L. Castle-----	Upper Alton, Ill.-----	Nov. 24, 1857-----	May 11, 1858.
533	Barrels and other casks, machine for making.	Isaac Crossett-----	Bennington, Vt -----	July 1, 1844-----	Mar. 2, 1858.
531	Billiard-cues-----	Conrad Leicht-----	New York, N. Y -----	May 27, 1856-----	Feb. 23, 1858.
544	Boilers, steam-----	W. M. and J. B. Ellis-----	Washington, D. C.-----	Sept. 29, 1857-----	April 13, 1858.
594	Boilers, steam-----	F. P. Dimpfel-----	Philadelphia, Pa.-----	April 1, 1856-----	Aug. 31, 1858.
530	Boilers, steam, safety indicators for-----	Lucius J. Knowles-----	Warren, Mass -----	Feb. 10, 1857-----	Feb. 23, 1858.
612	Bolting flour-----	Edward Bradfield-----	Rochester, N. Y -----	Sept. 15, 1846-----	Oct. 12, 1858.
523	Books, account, machine for numbering the pages of.	John McAdams-----	Boston, Mass -----	Aug. 12, 1851-----	Jan. 26, 1858.
632	Boots and shoes, metal tips for toes of--	George A. Mitchell-----	Turner, Me -----	Jan. 5, 1858-----	Dec. 7, 1858.
550	Boxes for receiving passengers' fares-----	I. B. Slawson-----	New Orleans, La -----	July 28, 1857-----	May 4, 1858.
620	Caoutchouc, treatment of-----	Austin G. Day-----	Seymour, Conn.-----	Aug. 10, 1858-----	Nov. 9, 1858.
541	Car-wheels, railroad-----	W. B. Treadwell-----	Albany, N. Y -----	Jan. 9, 1849-----	Mar. 30, 1858.
532	Carding-machine-----	S. R. Parkhurst-----	New York, N. Y -----	June 20, 1848-----	Feb. 23, 1858.
609	Carriages, wear-iron for-----	I. George Lefler-----	Philadelphia, Pa -----	Sept. 8, 1857-----	Oct. 5, 1858.
615	Cars, railroad, elliptic cushion for-----	Samuel R. Jones-----	York, Pa -----	April 27, 1858-----	Oct. 26, 1858.
602	Cars, railroad, for day and night service--	J. B. Creighton-----	Tiffin, Ohio -----	May 18, 1858-----	Sept. 21, 1858.
598	Cartridges-----	Gilbert Smith-----	Buttermilk Falls, N. Y.-----	June 30, 1857-----	Sept. 14, 1858.
547	Casters, syrup-----	Edmund Bigelow-----	Springfield, Mass -----	April 6, 1858-----	May 4, 1858.
539	Casting iron-pipe, employing centrifugal force in.	Thomas J. Lovegrove-----	Baltimore, Md -----	Dec. 26, 1848-----	Mar. 23, 1858.
611	Chairs-----	James Fernald-----	Boston, Mass -----	July 22, 1856-----	Oct. 12, 1858.
630	Churn-----	James Macnish-----	Berlin, Wis -----	April 20, 1858-----	Nov. 30, 1858.
636	Cloth, elastic, manufacture of-----	Horace H. Day, assignee of Richard Solis, through mesne assignments.	New York, N. Y -----	Nov. 7, 1848-----	Dec. 14, 1858.
583	Coffee-pot-----	Charles B. Waite and Joseph W. Sener-----	Fredericksburg, Va -----	April 22, 1856-----	Aug. 10, 1858.
566	Electro-magnetic alarm-----	A. R. Pope-----	Somerville, Mass -----	June 21, 1853-----	June 8, 1858.
584	Engines, steam, surface condensers for--	J. P. Pirsson-----	New York, N. Y -----	April 2, 1850-----	Aug. 10, 1858.



*List of reissues for 1858.*

N o.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
631	Felting for coats, hats, &c -----	Marmaduke Osborn-----	New York, N. Y.-----	May 28, 1842; extended for 7 years from May 28, 1856.	Nov. 30, 1858.
558	Fertilizers, machine for sowing-----	Warren S. Bartle, assignor to Lyman Bickford, and Henry Hoffman-----	Newark, N. Y.-----	April 22, 1856-----	May 18, 1858.
555	Flour from bran, machinery for separating.-----	J. Frost and J. Monroe, assignors to H. A. Burr, I. D. Condit, A. Swift, D. Bar-num, and J. M. Carr.	Macedon, N. Y.-----	Feb. 27, 1849; reissued Mar. 13, 1855.	May 11, 1858.
549	Furnace, bagasse -----	A. Hager and Youngs Allyn-----	Baton Rouge, La.-----	May 6, 1856-----	May 4, 1858.
619	Furnace for burning bagasse -----	Elizabeth Ann Harris, administratrix of Alfred Stillman, deceased.	New York, N. Y.-----	May 1, 1855-----	Nov. 9, 1858.
642	Gas-burner -----	A. H. Wood, assignor to I. R. Foster-----	Boston, Mass.-----	Sept. 21, 1858-----	Dec. 28, 1858.
610	Gas-meters, dry -----	Alexander Angus Croll-----	London, England-----	Feb. 22, 1853-----	Oct. 5, 1858.
536	Gas-tube joint-----	Charles Monson-----	New Haven, Conn.-----	Jan. 19, 1858-----	Mar. 9, 1858.
527	Gun, walking-stick -----	Ira Buckman, jr -----	New York, N. Y.-----	Aug. 4, 1857-----	Feb. 16, 1858.
548	Harvester -----	Charles Crook -----	New Hope, Pa.-----	May 5, 1857-----	May 4, 1858.
590	Harvester, (Reissue A)-----	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y.-----	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
591	Harvester, (Division B)-----	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y.-----	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
592	Harvester, (Division C)-----	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y.-----	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
593	Harvester, (Division D)-----	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y.-----	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
618	Harvester, corn-----	R. C. Mauck and-----	Conrad's Store, Va.-----	April 22, 1856-----	Nov. 2, 1858.
545	Harvester, grass -----	W. T. McGahey -----	McGaheysville, Va.-----	Sept. 4, 1855-----	April 13, 1858.
561	Harvesters, cutting device for, No. 1-----	Jonathan Haines -----	Pekin, Ill.-----	Mar. 21, 1854; antedat'd Sept. 21, 1853.	May 25, 1858.
564	Harvesters, cutting device for, No. 4-----	Henry Green-----	Ottawa, Ill.-----	Mar. 21, 1854; antedat'd Sept. 21, 1853.	May 25, 1858.
538	Hat-bodies, machinery for making -----	William Fasket -----	Meriden, Conn.-----	Jan. 23, 1846-----	Mar. 23, 1858.



616	Heat, generating, mode of.....	William Hartell and Joseph Lancaster, assignors to Thomas R. Hartell.	Philadelphia, Pa.....	Nov. 23, 1852.....	Nov. 2, 1858.
595	Hose, textile, manufacture of.....	L. B. Cooley and James C. Cooke, assignors to L. B. Cooley, S. Babcock, and B. G. Cooley.	Middletown, Conn ...	March 16, 1858.....	Aug. 31, 1858.
627	Journals of axles on railways, reducing the friction of.	Leon Joseph Pomme de Mirimond, assignor to James H. Deming.	New York, N. Y.....	Feb. 2, 1858; France Aug. 23, 1856.	Nov. 23, 1858.
580	Knife polisher.....	R. Shaler, assignor to W. H. Horstman.	New York, N. Y.....	Nov. 28, 1848.....	Aug. 10, 1858.
537	Lamp, lard.....	Isaac N. Coffin.....	Washington, D. C.....	March 17, 1857.....	Mar. 16, 1858.
576	Lathing surface, continuous sheet-metal.	John B. Cornell.....	New York, N. Y.....	May 13, 1856.....	Aug. 3, 1858.
535	Life preserving raft.....	Lorenzo Taggart.....	Philadelphia, Pa.....	Jan. 26, 1858.....	Mar. 2, 1858.
621	Locomotive, automatic steam whistles in	James Harrison.....	New York, N. Y.....	April 1, 1856.....	Nov. 9, 1858.
534	Locomotive, engines, running gear of...	Septimus Norris.....	Philadelphia, Pa.....	Sept. 26, 1854.....	Mar. 2, 1858.
639	Looms for weaving figured fabrics.....	George Crompton.....	Worcester, Mass.....	Nov. 14, 1854.....	Dec. 28, 1858.
625	Mill, grinding.....	Edward Harrison.....	New Haven, Conn....	June 6, 1854.....	Nov. 16, 1858.
662	Mowing machine (No. 2).....	Henry Green.....	Ottawa, Ill.....	Mar. 21, 1854; antedated Sept. 21, 1853.	May 25, 1858.
663	Mowing machine, reel supports in (No. 3)	Henry Green.....	Ottawa, Ill.....	Mar. 21, 1854; antedated Sept. 21, 1853.	May 25, 1858.
577	Omnibus fare-box.....	Israel S. Reeves, assignor to J. B. Slawson.	New Orleans, La.....	Feb. 23, 1858.....	Aug. 3, 1858.
635	Organ.....	William Sumner.....	Worcester, Mass.....	Feb. 28, 1854.....	Dec. 14, 1858.
608	Paper from wood, manufacture of.....	William F. Ladd and Morris L. Keen, assignees of Charles Watt and Hugh Burgess	New York, N. Y..... } Philadelphia, Pa.... } London, England.. }	July 18, 1854; antedated Aug. 19, 1853.	Oct. 5, 1858.
574	Paper, machine for folding.....	J. North, assignor to A. Hardy, assignor to S. T. Bacon.	Middletown, Conn. } Boston, Mass..... }	April 15, 1856.....	July 27, 1858.
596	Pavement, side-walk.....	John B. Cornell.....	New York, N. Y.....	April 28, 1857.....	Sept. 7, 1858.
528	Pencil-sharpeners, moulds for casting...	Walter K. Foster.....	Bangor, Me.....	April 17, 1855.....	Feb. 23, 1858.
633	Pistols and other fire-arms.....	Ethan Allen.....	Worcester, Mass.....	April 16, 1845.....	Dec. 14, 1858.
525	Planter, corn.....	Martin Robbins.....	Cincinnati, Ohio.....	Feb. 10, 1857.....	Feb. 9, 1858.
634	Planter, corn.....	Nathaniel Drake.....	Newton, N. J.....	Feb. 2, 1858; add. imp't Sept. 8, 1858.	Dec. 14, 1858.
526	Planter, seed.....	George W. Brown.....	Galesburg, Ill.....	Aug. 2, 1853; antedated Feb. 2, 1853.	Feb. 16, 1858.
553	Planter, seed.....	B. Kuhns and M. J. Haines.....	Dayton, Ohio. .... } Delaware city, Del. }	Sept. 30, 1856.....	May 11, 1858.
623	Planter, seed.....	Jarvis Case.....	Bloomington, Ill.....	Jan. 16, 1855.....	Nov. 16, 1858.
519	Printing press.....	Stephen P. Ruggles.....	Boston, Mass.....	Jan. 1, 1851.....	Jan. 19, 1858.
529	Printing press.....	George P. Gordon.....	New York, N. Y.....	Aug. 31, 1852.....	Feb. 23, 1858.



*List of reissues for 1858.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
581	Printing press.....	George P. Gordon.....	New York, N. Y.....	Jan. 1, 1856.....	Aug. 10, 1858.
624	Printing press.....	George P. Gordon.....	New York, N. Y.....	June 13, 1854.....	Nov. 16, 1858.
546	Printing press, power.....	Isaac Adams.....	Boston, Mass.....	Oct. 4, 1830; extended by Congress Aug. 16, 1856.	April 20, 1858.
589	Pump.....	Hosea Lindsey.....	Ashville, N. C.....	Dec. 4, 1855.....	Aug. 24, 1858.
614	Pumps ventilating attachment to be applied to.	C. N. Lewis and G. C. King, assignors to George C. King.	Seneca Falls, N. Y....	Nov. 17, 1857.....	Oct. 26, 1858.
582	Railroads, turning and sliding tables for.	W. Sellers.....	Philadelphia, Pa.....	March 23, 1858.....	Aug. 10, 1858.
578	Reaping-machine (A).....	Cyrus H. McCormick.....	Chicago, Ill.....	Jan. 31, 1845.....	Aug. 3, 1858.
579	Reaping-machine (division B).....	Cyrus H. McCormick.....	Chicago, Ill.....	Jan. 31, 1845.....	Aug. 3, 1858.
637	Reaping-machine.....	Cyrus H. McCormick.....	Chicago, Ill.....	Oct. 23, 1847; reissued May 24, 1853.	Dec. 21, 1858.
588	Rubber goods, hard, manufacture of.....	Gustavus Cuppers.....	New York, N. Y.....	July 20, 1858.....	Aug. 24, 1858.
556	Rubber, India, manufacture of.....	Henry B. Goodyear, administrator of Nelson Goodyear, deceased.	New York, N. Y.....	May 6, 1851.....	May 18, 1858.
557	Rubber, india, manufacture of (division )	Henry B. Goodyear, administrator of Nelson Goodyear, deceased.	New York, N. Y.....	May 6, 1851.....	May 18, 1858.
629	Saw-mill.....	Hazard Knowles.....	New York, N. Y.....	Sept. 28, 1852.....	Nov. 30, 1858.
542	Sawing-mill.....	W. M. Ferry, jr.....	Ferrysburgh, Mich....	July 21, 1857.....	April 6, 1858.
552	Sawing-mill.....	W. Hawkins and W. C. Clary.....	Milwaukie, Wis.....	March 30, 1858.....	May 11, 1858.
641	Screws, machinery for cutting.....	Thomas W. Harvey, assignor (through Charles Ely) to H. A. Harvey.	New York, N. Y.....	May 30, 1846.....	Dec. 28, 1858.
626	Screws, wood.....	Thomas J. Sloan, assignor to the.....	New York, N. Y.....	Aug. 20, 1846; reissued Feb. 22, 1848.	Nov. 23, 1858.
524	Scythe fastenings.....	Eagle Screw Company.....	Providence, R. I.....	Jan. 11, 1853.....	Feb. 9, 1858.
554	Seeding machine.....	Pinckney Frost.....	Springfield, Vt.....	Sept. 1, 1857.....	May 11, 1858.
540	Separator, grain.....	C. W. Cahoon, assignor to J. B. Cahoon and D. H. Furbish.....	Portland, Me.....		
517	Sewing-machine, (A).....	John R. Moffitt.....	St. Louis, Mo.....	Nov. 30, 1852.....	Mar. 23, 1858.
		C. Morey and J. B. Johnson, assignors to J. M. Singer and Edward Clark.....	Boston, Mass.....	Feb. 6, 1849; reissued June 27, 1854.	Jan. 12, 1858.



513	Sewing-machine, (Division).....	{	C. Morey and J. B. Johnson, assignors to J. M. Singer and Edward Clark.....	Boston, Mass.....	Feb. 6, 1849; reissued June 27, 1854.	Jan. 12, 1858.
560	Sewing-machine.....	{	T. J. W. Robertson.....	New York, N. Y.....	Feb. 26, 1856.....	May 18, 1858.
568	Sewing-machine.....	{	W. O. Grover and W. E. Baker, assignors to the Grover and Baker Sewing-Machine Company.	Boston, Mass.....	Feb. 11, 1851.....	June 15, 1858.
567	Sewing-machine.....		C. A. Durgin.....	New York, N. Y.....	May 22, 1855.....	June 15, 1858.
572	Sewing-machine.....		W. O. Grover and W. E. Baker, assignors to the Grover and Baker Sewing-Machine Company.	Boston, Mass.....	June 22, 1852.....	July 6, 1858.
573	Sewing-machine.....		James E. A. Gibbs, assignor to J. A. Rucknan.	Millpoint, Va.....	June 2, 1857.....	July 13, 1858.
600	Sewing-machine.....		James Harrison, jr.....	New York, N. Y.....	April 11, 1854.....	Sept. 14, 1858.
599	Sewing-machine.....		T. J. W. Robertson.....	New York, N. Y.....	May 22, 1855.....	Sept. 14, 1858.
613	Sewing-machine.....	{	Grover and Baker Sewing-Machine Co., assignees of Sherburne C. Blodgett.....	Boston, Mass.....	Dec. 20, 1853.....	Oct. 12, 1858.
617	Sewing-machine.....		John Bachelder, assignor to Isaac M. Singer and Edward Clarke.	Georgetown, Mass.....	May 8, 1849.....	Nov. 2, 1858.
638	Shears.....		Joseph A. Braden.....	New York, N. Y.....	Sept. 21, 1858.....	Dec. 28, 1858.
521	Shells, eccentric explosive.....		William W. Hubbell.....	La Grange, Ga.....	Jan. 22, 1856.....	Jan. 19, 1858.
604	Shingle-machine.....		James Crary.....	Philadelphia, Pa.....	Nov. 24, 1857.....	Sept. 28, 1858.
601	Ship-board, hoisting winches for.....		Joel Bryant.....	Middleport, Ohio.....	April 7, 1857.....	Sept. 21, 1858.
570	Ships, &c., method of ventilating.....		Rudolph Knecht.....	Brooklyn, N. Y.....	Nov. 11, 1856.....	July 6, 1858.
585	Skirt-hoops.....		David Holmes.....	New York, N. Y.....	June 15, 1858.....	Aug. 17, 1858.
565	Steam-cylinder with steam-chests, mode of connecting the.....		F. E. Sickels.....	Westfield, Mass.....	Sept. 19, 1845.....	June 1, 1858.
606	Steam-pistons, metallic packing for.....		Daniel Lasher.....	New York, N. Y.....	June 30, 1857.....	Sept. 28, 1858.
622	Stove.....		Joseph C. Henderson.....	Albany, N. Y.....	May 18, 1858.....	Nov. 9, 1858.
522	Stove, air-tight.....	{	Zephaniah Bosworth, assignor to James M. McKinley.....	Harmar, Ohio.....	April 6, 1842; extended April 6, 1856.	Jan. 19, 1858.
559	Stove, cooking.....		Austin Bronson.....	Dubuque, Iowa.....	Aug. 22, 1848.....	May 18, 1858.
640	Stove, steam.....	{	J. L. Sutton, assignor to.....	East Port Chester, Ct.....	July 20, 1858.....	Dec. 28, 1858.
569	Stumps, mode of extracting.....		H. Downing.....	Norristown, Pa.....	Mar. 6, 1855.....	June 22, 1858.
607	Sugar, cleansing.....		William W. Willis.....	Philadelphia, Pa.....	Oct. 3, 1844; extended Oct. 2, 1858.	Sept. 28, 1858.
605	Telegraph, magnetic printing.....		Francis P. Hurd, assignee by mesne assignment of Joseph Hurd.	Orange, Mass.....	Dec. 28, 1852.....	Sept. 28, 1858.
597	Trap for catching flies.....		Royal E. House.....	Stoneham, Mass.....	April 16, 1850.....	Sept. 7, 1858.
520	Vault-covers.....		Joel B. Fuller and George W. Pierce.....	Binghamton, N. Y.....	April 21, 1857.....	Jan. 19, 1858.
			George R. Jackson.....	Worcester, Mass.....		
				New York, N. Y.....		



List of reissues for 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
587	Watch-cases, (A) .....	John F. Watson, assignor to.....	St. John's Square, Clerkenwell, Eng. Newark, N. J. .... St. John's Square, Clerkenwell, Eng. Newark, N. J. .... Newark, N. J. .... New York, N. Y. .... Brooklyn, N. Y. ....	April 13, 1858; Eng- land, June 16, 1857.	Aug. 17, 1858.
586	Watch-cases, (Division B) .....	W. E. Baldwin and E. Bliss .....			
628	Watch-cases.....	John F. Watson, assignor to.....			
543	Window-shades, rollers for .....	W. E. Baldwin and E. Bliss .....			
571	Workmen, machine for marking time of the attendance of.	Elihu Bliss, assignor to Baldwin & Co... J. B. Bailey..... B. T. Harris, assignor to M. E. Harris.....		April 13, 1858..... Feb. 16, 1858..... Aug. 11, 1857.....	Nov. 23, 1858. April 13, 1858. July 6, 1858.

LIST OF ADDITIONAL IMPROVEMENTS GRANTED DURING THE YEAR 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Imp'ts added.
206	Bolt, swing, for fastening shutters.....	J. Gunner, jr .....	New York, N. Y .....	May 20, 1856	Sept. 28, 1858.
190	Bullet-mould.....	Henry L. De Zeng.....	Geneva, N. Y .....	March 31, 1857	Feb. 16, 1858.
197	Car-brake, automatic railroad.....	W. R. Jackson.....	Baltimore, Md .....	Sept. 8, 1857	March 30, 1858.
214	Car-seats and couches. ....	Alexander M. Holmes, assignor to him- self and Albert G. Purdy.	Morrisville, N. Y .....	Sept. 14, 1858	Dec. 21, 1858.
196	Carriage-bodies, hanging.....	J. M. Jones.....	Palmyra, N. Y .....	July 22, 1851	March 30, 1858.
200	Carriage-wheels, tightening the tires of.	R. B. Scott .....	Philadelphia, Pa.....	March 23, 1858	June 8, 1858.
199	Chairs, rotary blast-producing.....	L. R. Breisach .....	New York, N. Y .....	Feb. 16, 1858	June 1, 1858.
185	File-cutting machine.....	Isaac H. Collier.....	Poughkeepsie, N. Y .....	Feb. 24, 1857	Jan. 12, 1858.
204	Fire arm, revolving.....	Frederick D. Newbury .....	Albany, N. Y .....	June 29, 1858	Sept. 28, 1858.
210	Gin-feeder, cotton.....	Jedediah Prescott.....	Memphis, Tenn .....	Oct. 13, 1857	Nov. 30, 1858.

195	Hoops, metallic clasps for.	James R. Speer.	Pittsburg, Pa.	Dec.	1, 1857	March	23, 1858.
207	Hoops, metallic clasps for	James R. Speer.	Pittsburg, Pa.	Dec.	1, 1857	Oct.	26, 1858.
208	Lanterns, method of attaching lamps to.	John Fleming	Pittsburg, Pa.	July	6, 1858	Nov.	2, 1858.
191	Life-preserving berths for steam and other vessels.	Elbridge Foster	Hartford, Conn.	Sept.	1, 1857	Feb.	16, 1858.
192	Lime-kiln	Powell Griscom and Charles S. Denn	Baltimore, Md.	Nov.	17, 1857	Feb.	23, 1858.
187	Mill, cider.	Benjamin Mackerley	New Petersburg, Ohio.	Nov.	4, 1856	Jan.	19, 1858.
193	Mill, cutting flour.	Jonathan Burdge	Cincinnati, Ohio.	June	10, 1856	March	9, 1858.
189	Mill-stone dress for hulling rice	Charles R. Barnes	New York, N. Y.	Feb.	20, 1855	Jan.	26, 1858.
205	Planter, corn	Nathaniel Drake	Newton, N. J.	Feb.	2, 1858	Sept.	28, 1858.
184	Plough	Benaiah C. Hoyt	Port Washington, Wis.	Sept.	2, 1856	Jan.	5, 1858.
194	Plough, steam	P. Klinge	Washington, D. C.	Feb.	23, 1858	March	9, 1858.
198	Printing-press, hand	Samuel J. Smith	New York, N. Y.	Nov.	3, 1857	April	6, 1858.
209	Propeller	Henry Link	Little Falls, N. Y.	May	8, 1855	Nov.	16, 1858.
211	Pump, rotary	Levi Burnell	Milwaukee, Wis.	Aug.	31, 1858	Dec.	14, 1858.
188	Rolls, drawing, covering for	Joseph M. Smith	Manchester, N. H.	July	7, 1857	Jan.	26, 1858.
202	Shingle-machine	E. Webber	Gardiner, Me.	June	28, 1857	June	15, 1858.
212	Soap, manufacture of	Dalrymple Crawford	Toronto, Canada.	March	30, 1858	Dec.	14, 1858.
203	Trap for animals	F. Reuthe	Hartford, Conn.	May	12, 1857	July	6, 1858.
213	Warps, dressing and sizing, machinery for.	Baxter D. Whitney	Winchendon, Mass.	Aug.	11, 1857	Dec.	21, 1858.
201	Watchmakers' lathes, polishing apparatus for.	J. M. Bottum	New York, N. Y.	March	13, 1855	June	8, 1858.
186	Wooden surfaces, planed, machine for smoothing.	William Bradley	Manchester, Va.	Aug.	11, 1857	Jan.	12, 1858.



LIST OF DISCLAIMERS ENTERED DURING THE YEAR 1858.

Inventions or discoveries.	Patentees.	Residence.	Date of disclaimer.	Date of patent.
Ceilings, fire-proof .....	Palmer Sumner .....	New York, N. Y. ....	July 17, 1858	April 25, 1844; extended April 22, 1858.
Hoe.....	Horace A. Lothrop.....	Sharon, Mass.....	Jan. 29, 1858	Dec. 29, 1857.
Vessels for holding liquids.....	Sophia E. and Julia M. Stimpson and Edmund F. Coburn, assignees of James H. Stimpson.	Baltimore, Md.....	Nov. 12, 1858	Oct. 17, 1854.

LIST OF EXTENSIONS GRANTED DURING THE YEAR 1858.

Inventions or discoveries.	Patentees.	Residence.	Date of extension.	Date of patent.
Barrels and other casks, machine for making.	Isaac Crossett.....	Bennington, Vt.....	June 26, 1858	July —, 1844; reissued Mar. 2, 1858.
Boot-crimps.....	Josiah Copeland .....	Weymouth, Mass .....	Jan. 11, 1858	Jan. 20, 1844; reissued Aug. 11, 1857.
Bridges, truss-frames of.....	Caleb Pratt.....	Newton, Mass.....	Mar. 27, 1858	April 4, 1844.
Car-wheels, railroad, method of making	T. Willis Pratt.....	Middletown, Conn. }	Aug. 9, 1858	Aug. 10, 1844.
cast-iron.	E. A. Lester.....	Boston, Mass.....	Mar. 3, 1858	Mar. 9, 1844.
Cloth, machinery for folding and measuring.	Silas C. Durgin.....	Holyoke, Mass.....	Mar. 15, 1858	Mar. 16, 1844.
Gates, lock, manner of suspending, opening, and closing.	Henry McCarty.....	Pittsburg, Pa.....	Dec. 27, 1858	Jan. 4, 1845.
Gin, cotton, saw.....	Eleazer Carver.....	Bridgewater, Mass. ..	June 14, 1858	June 15, 1844; reissued in two patents Dec. 25, 1849,
India-rubber fabrics.....	Charles Goodyear .....	New Haven, Conn. ....		

Lard, method of rendering.....	Charles Wilson, administrator of Ebenezer Wilson, deceased.	St. Louis, Mo.....	Oct. 7, 1858	Oct. 9, 1844.
Lath, metallic.....	Palmer Sumner.....	New York, N. Y.....	April 22, 1858	April 25, 1844.
Leather, machinery for splitting strips or pieces of.	Hubbard Harris, administrator of Alpha Richardson, deceased.	North Enfield, N. H..	April 16, 1858	April 17, 1844.
Presses, hay.....	Joseph Eaton, Administrator of Charles F. Paine, deceased.	Winslow, Me.....	April 21, 1858	April 25, 1844.
Saws, circular, method of applying, for cutting off piles under water.	Erastus E. Cole.....	Somerville, Mass.....	Sept. 2, 1858	Sept. 14, 1844.
Ships' blocks.....	Isaac D. Russell and Cornelia Waterman, administratrix of Stephen Waterman, deceased.	New York, N. Y.....	Jan. 31, 1858	Jan 31, 1844; reissued June 9, 1857.
Stone, coal.....	Henry Stanley.....	Albany, N. Y. ....	Dec. 24, 1858	Jan. 4, 1845.
Straw-cutter.....	H. M. Smith.....	Richmond, Va.....	Feb. 17, 1858	Feb. 20, 1844.
Sugar, cleansing.....	F. P. Hurd, administrator of J. Hurd, deceased, and assignee through mesne assignments of said J. Hurd.	South Reading, Mass..	Oct. 2, 1858	Oct. 3, 1844; reissued Sept. 28, 1858.
Tonguing and grooving machine .....	C. W. Brown .....	Boston, Mass.....	July 28, 1858	Aug. 14, 1844; reissued Feb. 5, 1856.
Type-casting machine .....	David Bruce, jr.....	Brooklyn, N. Y.....	June 28, 1858	Nov. 6, 1843.
Valves of steam-engines, method of opening and closing.	F. E. Sickels .....	New York, N. Y.....	Oct. 8, 1858	Oct. 19, 1844.



## LIST OF PATENTS FOR DESIGNS GRANTED DURING THE YEAR 1858.

No.	Designs.	Patentees.	Residence.	Date.
1008	Aquarium.....	A. L. Blanchard .....	Albany, N. Y. ....	June 1, 1858.
1024	Bedsteads.....	H. Neidig.....	New York, N. Y. ....	July 13, 1858.
1025	Bedsteads.....	H. Neidig.....	New York, N. Y. ....	July 13, 1858.
1050	Bedsteads, cast-iron.....	Philip Fabb .....	New York, N. Y. ....	Sept. 14, 1858.
995	Bedsteads, iron, legs and posts of .....	John P. Koch .....	New York, N. Y. ....	Mar. 23, 858.
1074	Book-marks .....	William B. French.....	Charlestown, Mass .....	Dec. 14, 1858.
1049	Bottles, nursery.....	Francis Kern.....	Sandwich, Mass.....	Sept. 14, 1858.
1001	Box, tool.....	Herrick Aiken.....	Franklin, N. H. ....	May 11, 1858.
1030	Can-covers .....	John F. Bodine, assignor to himself and William H. & J. Alfred Bodine.	Williamstown, N. J. ....	Aug. 3, 1858.
993	Carriage-hub sand-bands .....	James Ives.....	Hamden, Conn.....	Mar. 9, 1858.
1000	Clock-case fronts.....	Samuel B. Jerome .....	Waterbury, Conn .....	May 4, 1858.
1070	Coffins, metallic .....	William H. Forbes .....	New York, N. Y. ....	Dec. 7, 1858.
990	Compass stands.....	E. A. Tuttle & Thomas Barry.....	New York, N. Y. ....	Feb. 23, 1858.
1034	Door-lock plates.....	Cornelius B. Erwin.....	New Britain, Conn.....	Aug. 10, 1858.
1035	Door-lock plates.....	Cornelius B. Erwin.....	New Britain, Conn.....	Aug. 10, 1858.
1036	Door-lock plates .....	Henry E. Russell .....	New Britain, Conn.....	Aug. 10, 1858.
1053	Fences, cast-iron.....	Martin Briggs .....	Rochester, N. Y. ....	Oct. 5, 1858.
1069	Fences, iron.....	Edwin Gomez .....	New York, N. Y. ....	Nov. 30, 1858.
1057	Lockets .....	A. C. Randall.....	Providence, R. I. ....	Oct. 19, 1858.
1054	Marks, trade .....	Richard P. & Charles Bruff & George A. Seaver.....	New York, N. Y. ....	Oct. 5, 1858.
1046	Pans, bread .....	Nathaniel Waterman.....	Boston, Mass .....	Aug. 31, 1858.
1028	Pitchers .....	George W. Smith .....	Hartford, Conn .....	July 20, 1858.
991	Pots, tea and coffee .....	Allen Leonard, assignor to Rodgers Brothers Manufacturing Co.	Hartford, Conn .....	Feb. 23, 1858.
994	Press-stand, copying.....	Charles H. Clayton .....	New York, N. Y. ....	Mar. 23, 1858.
1023	Range-fronts.....	A. C. Barstow .....	Providence, R. I. ....	July 6, 1858.
1073	Ranges, cooks'.....	G. Smith & H. Brown, assignors to G. Abbott & A. Lawrence.	Philadelphia, Pa.....	Dec. 14, 1858.
1043	Roll-pans.....	Nathaniel Waterman .....	Boston, Mass .....	Aug. 17, 1858.
1045	Screens .....	James L. Jackson.....	New York, N. Y. ....	Aug. 31, 1858.
997	Screens for steam-pipes, &c. (No. 1).....	J. L. Jackson .....	New York, N. Y. ....	April 13, 1858.
998	Screens for steam-pipes, &c. (No. 2.).....	James L. Jackson .....	New York, N. Y. ....	April 13, 1858.

1012	Sewing-machine stands.....	J. Willcox .....	Philadelphia, Pa.....	June 1, 1858.
989	Sewing-machines, tables for .....	S. F. Pratt .....	Roxbury, Mass.....	Feb. 16, 1858.
1056	Shovels, cast-iron fire.....	William Bennett.....	New York, N. Y.....	Oct. 12, 1858.
988	Spoons, &c., handles of.....	Henry Hebbard & John Polhamus.....	New York, N. Y.....	Feb. 16, 1858.
1062	Stand, hat and cane.....	Edward Reynolds, assignor to Thomas W. Brown.	Boston, Mass.....	Nov. 16, 1858.
1007	Stand, towel.....	N. Waterman .....	Boston, Mass.....	May 25, 1858.
1032	Stand, towel.....	Nathaniel Waterman .....	Boston, Mass.....	Aug. 3, 1858.
1060	Statuettes of Henry Clay .....	T Ball, assignor to George W. Nichols.....	Boston, Mass.....	Nov. 9, 1858.
973	Stove.....	N. S. Vedder, assignor to George W. Eddy .....	Troy, N. Y.....	Jan. 5, 1858.
975	Stove.....	Charles J. Shepard.....	Brooklyn, N. Y .....	Jan. 5, 1858.
984	Stove.....	N. S. Vedder & William L. Sanderson, assignors to George Warren.	Troy, N. Y.....	Jan. 12, 1858.
983	Stove.....	N. S. Vedder & William L. Sanderson, assignors to L. Potter & Co.	Troy, N. Y.....	Jan. 12, 1858.
982	Stove.....	N. S. Vedder & Ezra Ripley, assignors to L. Potter & Co.	Troy, N. Y.....	Jan. 12, 1858.
980	Stove.....	Peter A. Palmer.....	Troy, N. Y.....	Jan. 12, 1858.
976	Stove. (Leader).....	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.....	Jan. 12, 1858.
977	Stove. (Consul.) .....	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.....	Jan. 12, 1858.
978	Stove. (Viola.).....	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.....	Jan. 12, 1858.
979	Stove. (Pride of the West.) .....	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.....	Jan. 12, 1858.
986	Stove.....	A. C. Barstow .....	Providence, R. I.....	Jan 19, 1858.
1017	Stove.....	J. A. Reed, assignor to D. Stuart & J. Peterson.	Philadelphia, Pa.....	June 29, 1858.
1016	Stove.....	J. Horton, assignor to D. Stuart & J. Peterson.	Philadelphia, Pa.....	June 29, 1858.
1027	Stove.....	N. S. Vedder, assignor to G. W. Eddy.....	Troy, N. Y.....	July 13, 1858.
1029	Stove.....	G. Smith & H. Brown, assignors to G. Abbott & A. Lawrence.	Philadelphia, Pa.....	July 20, 1858.
1041	Stova. (Fancy Egg.).....	Jacob Steffe, James Horton, & John Currier, assignors to David Stuart & Richard Peterson.	Philadelphia, Pa.....	Aug. 17, 1858.
1042	Stove. (Ironaides.) .....	Jacob Steffe, James Horton, & John Currier, assignors to David Stuart & Richard Peterson.	Philadelphia, Pa.....	Aug. 17, 1858.
1048	Stove.....	Nathaniel P. Richardson.....	Portland, Me .....	Sept. 7, 1858.
1052	Stove.....	G. Smith & H. Brown, assignors to North, Chase, & North.	Philadelphia, Pa.....	Sept. 21, 1858.
1059	Stove.....	E. J. Cridge.....	Troy, N. Y.....	Nov. 2, 1858.



List of patents for designs, 1858.

No.	Designs.	Patentees.	Residence.	Date.
1061	Stove.....	Lyman L. Thomas, assignor to Dighton Furnace Company.	North Dighton, Mass.....	Nov. 9, 1858.
1037	Stove, box .....	N. P. Vedder and Ezra Ripley, assignors to N. S. Vedder.	Troy, N. Y.....	Aug. 10, 1858.
1038	Stove, cooking.....	N. S. Vedder .....	Troy, N. Y.....	Aug. 10, 1858.
974	Stove, cooks' .....	G. Smith, H. Brown, and S. H. Sailor, assignors to Alexander Small and E. G. Smyzer.	Philadelphia, Pa.....	Jan. 5, 1858.
996	Stove, cooks' .....	G. W. Pittock, G. G. Richmond, and C. Phelps, assignors to themselves and J. Sown.	Troy, N. Y.....	April 6, 1858.
999	Stove, cooks' .....	R. Wheeler and S. A. Bailey.....	Utica, N. Y.....	May 4, 1858.
1003	Stove, cooks' .....	S. W. Gibbs, assignor to Rathbone & Co.....	Albany, N. Y.....	May 11, 1858.
1002	Stove, cooks' .....	T. H. Wood, J. E. Roberts, and H. S. Hubbell.	Utica, N. Y.....	May 11, 1858.
1010	Stove, cooks' .....	E. J. Delany and J. Martino, assignors to W. P. Cresson, D. Stuart, and R. Peterson	Philadelphia, Pa.....	June 1, 1858.
1018	Stove, cooks' .....	G. Smith and H. Brown, assignors to Leibrandt, McDowell, & Co.	Philadelphia, Pa.....	June 29, 1858.
1019	Stove, cooks' .....	G. Smith and H. Brown, assignors to Leibrandt, McDowell, & Co.	Philadelphia, Pa.....	June 29, 1858.
1026	Stove, cooks' .....	E. J. Delany, assignor to H. E. March and J. Johnson.	Philadelphia, Pa.....	July 13, 1858.
1031	Stove, cooks' .....	R. Ham, assignor to Smith, Sheldon, & Co.....	Troy, N. Y.....	Aug. 3, 1858.
1044	Stove, cooks' .....	William P. Abendroth .....	Port Chester, N. Y.....	Aug. 31, 1858.
1055	Stove, cooks' .....	N. S. Vedder, assignor to G. W. Eddy.....	Troy, N. Y.....	Oet. 5, 1858.
1063	Stove, cooks' .....	A. C. Barstow .....	Providence, R. I.....	Nov. 16, 1858.
1047	Stove, cooks' oven.....	William W. Stevens, assignor to Nathaniel P. Richardson & Co.	Westbrook, Maine .....	Sept. 7, 1858.
1071	Stove, dining-room .....	George D. Sprecher.....	Lancaster, Pa.....	Dec. 7, 1858.
1005	Stove-doors .....	J. Beesley, assignor to J. C. Clark and Washington Harris.	Philadelphia, Pa.....	May 11, 1858.
1013	Stove-doors .....	R. H. N. Bates, assignor to himself, Isaac Backus, and J. P. Barstow.	Providence, R. I.....	June 8, 1858.
1004	Stove, parlor .....	S. W. Gibbs, assignor to Rathbone & Co.....	Albany, N. Y.....	May 11, 1858

1039	Stove, parlor .....	N. S. Vedder .....	Troy, N. Y. ....	Aug. 10, 1858.
1072	Stove, parlor .....	G. Smith and H. Brown, assignors to Leibrandt, McDowell, & Co.	Philadelphia, Pa. ....	Dec. 14, 1858.
987	Stove-plates .....	E. S. Delany and John Martino, assignors to Cresson, Stuart, and Peterson.	Philadelphia, Pa. ....	Feb. 16, 1858.
992	Stove-plates .....	N. S. Vedder and Ezra Ripley, assignors to Louis <sup>a</sup> Potter.	Troy, N. Y. ....	Feb. 23, 1858.
1015	Stove-plates .....	S. W. Gibbs, assignor to Rathbone & Co. ....	Albany, N. Y. ....	June 22, 1858.
1065	Stove-plates .....	Samuel D. Vose .....	Albany, N. Y. ....	Nov. 23, 1858.
1066	Stove-plates .....	Samuel D. Vose .....	Albany, N. Y. ....	Nov. 23, 1858.
1067	Stove-plates .....	Samuel D. Vose .....	Albany, N. Y. ....	Nov. 23, 1858.
1068	Stove-plates .....	Samuel D. Vose .....	Albany, N. Y. ....	Nov. 23, 1858.
1011	Stoves, &c., ornament in bas-relief for .....	G. T. Seavey .....	Boston, Mass. ....	June 1, 1858.
1058	Tablets, cast metal .....	Ezra Clarke, assignor to Seth Clarke .....	Portland, Maine .....	Oct. 26, 1858.
981	Tea-service .....	Henry G. Reed, assignor to himself and Charles E. Burton.	Taunton, Mass. ....	Jan. 12, 1858.
985	Types .....	George Bruce .....	New York, N. Y. ....	Jan. 19, 1858.
1020	Types .....	James Conner .....	New York, N. Y. ....	July 6, 1858.
1009	Types, a font of .....	James Conner .....	New York, N. Y. ....	June 1, 1858.
1014	Types, printers' .....	George Bruce .....	New York, N. Y. ....	June 15, 1858.
1021	Types, printers' .....	James Conner .....	New York, N. Y. ....	July 6, 1858.
1022	Types, printers' .....	James Conner .....	New York, N. Y. ....	July 6, 1858.
1033	Types, printers' .....	George Bruce .....	New York, N. Y. ....	Aug. 10, 1858.
1064	Types, script .....	James Conner .....	New York, N. Y. ....	Nov. 16, 1858.
1006	Types, set of printing .....	George Bruce .....	New York, N. Y. ....	May 25, 1858.





# DESCRIPTIONS AND CLAIMS OF PATENTS,

ISSUED IN THE YEAR 1858.

ILLUSTRATED WITH ENGRAVINGS.

[To find the Plates, see Index at the end of this Report.]

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## I. — AGRICULTURE.

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No. 19,520.—SOLOMON STANSBERRY, of Knoxville, Tenn.—*Improvement in Bee-Hives*.—Patent dated March 2, 1858.—The hives B are not provided with bottoms, and the lower ends of their sides *d* rest on the upper surfaces of concaves *e*, which extend from the front to the back end of the case A. D D D D represent cylinders, the front and back ends of which are fitted in the case A, a cylinder being underneath its concave. A part F is placed directly underneath each hive B, the parts F adjoining each other, and having their edges at their upper sides hollowed out to form a concave, as shown at *g*; so that when the parts F are raised, the concave of the two adjoining parts F will form a concave for the under part of the cylinder directly above them.

The inventor says: I do not claim enclosing one or more hives within a case or box A, for this has been previously done.

Nor do I claim spare honey-boxes C applied to the hives B, for these are commonly used.

But I *claim* the cylinders D placed within the hives, or below them, and fitted within concaves *e g*, arranged in any proper way so as to operate substantially as and for the purpose set forth.

No. 19,931.—KIMBALL P. KIDDER, of Burlington, Vt.—*Improvement in Bee-Hives*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the particular construction of the hive, so that the smaller portion may fit within the larger portion and leave a dead air space between them, or raised up and supported on the division or partition boards to form two hives; the whole being constructed and operating as herein set forth.

And I also claim, in combination with the hive constructed as described, the device *w* for regulating or entirely cutting off the ingress or egress openings; said device being susceptible of four distinct adjustments, as set forth and explained.

No. 20,202.—EDWARD P. FRENCH, of Nashua, N. H.—*Improvement in Bee-Hives*.—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim and engravings.



The inventor says: I am aware that it is not new to place a feeding-chamber in front of the hive, or the end thereof; also, that it is not new to arrange a feeding-chamber in one of the secondary chambers or honey boxes. I do not claim such, as, in the one case, the feed-chamber is exposed to robber bees; while, in the other, it is arranged in an inconvenient manner, and is objectionable in many respects.

I *claim* making the lower part, or both sides, of the main chamber B inclined towards the orifice of entrance *e*, in combination with the arrangement of an exercising and entrance chamber D, chamber F, feeding-box *h*, warm air spaces G G G, and air or ventilating passage O leading from the exercising chamber D upwards against the front sides of the secondary chambers, and over their tops into the chamber I, the main chamber communicating with said passage only by means of orifice *e* at its bottom, whereby the main and secondary chambers are kept warm, and at the same time relieved of bad air or carbonic acid gas by a ventilating current of air induced by their heat; the several parts being arranged as respects each other, and constructed as described, for the purpose set forth.

No. 20,417.—PHILANDER J. FURLONG, of Galen, N. Y.—*Improvement in Bee-Hives*.—Patent dated June 1, 1858.—The nature of this invention consists in the employment of a glass roof or condenser A A<sup>1</sup> with tin conductors C C<sup>1</sup>, whereby all moisture as it rises to the top of the hive in the form of vapor is condensed and conducted out of the hive.

*Claim*.—The arrangement of the glass roof A A<sup>1</sup> with relation to the cover of a bee-hive and to the conductors C C<sup>1</sup>; the whole being constructed and operated in the manner and for the purpose described.

No. 20,508.—THOMAS PROSSER, of Birmingham, Penn.—*Improvement in Bee-Hives*.—Patent dated June 8, 1858.—The nature of this invention consists in providing, intermediate between the external ingress passage and the internal entrance passage to the ante-chamber of the hive, a series of auxiliary indirect or labyrinthian passages *a a a*, in combination with isolated suspended shafts H and glass-covered entrances G G to the working chamber. The object of this invention is to effect a perfect exclusion of vermin from the honey.

*Claim*.—The combination in bee-hives of the labyrinthian passages *a a a*, suspended shafts H H, and glass entrances G G, when said parts are constructed and arranged, relatively to each other, in the manner and for the purposes set forth.

No. 21,163.—THOMAS H. WINDLE, of Wagontown, Penn.—*Improvement in Bee-Hives*.—Patent dated August 10, 1858.—This invention consists in a peculiar mode of constructing the moth-trap and a self-cleaning sliding bottom to each of the sections of the bee apartments, so that the moths and their deposits may be more effectually secured and removed from the hive, without damage either to the bees or the apiarist.

The inventor says: I am aware that bee-hives have been made with a moth-trap attached, and also with sections of separate bee apartments, arranged together and communicating with each other, and



having ventilating holes therein, substantially as described; therefore, I do not claim, broadly, either of these devices; but—

First, I *claim* the combined arrangement, in the moth-trap B, of the tapering moth-tubes 11, 11, 11, and the ventilated bee escape tubes 12 12, when the same are used in combination with the hive, the whole being constructed in the manner and for the purposes set forth and described.

Second, I also claim making each of the larger bee apartments C with the self-cleaning slide 4, the said slide being constructed as described, and applied in connexion with the tongued piece 7, so as to operate substantially in the manner and for the purpose set forth and described.

No. 21,912.—PETER TALTAVULL, of Washington, D. C.—*Improvement in Bee-Hives*.—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The arrangement of a simple rectangular containing-box, suspended diagonally, in combination with honey boxes therein arranged similarly, all having outlets or passages downward from their extreme lower edges; whereby the entire hive is rendered self-clearing, and a sloping roof, by the same arrangement, is produced, substantially as specified.

No. 22,030.—EBENEZER W. PHELPS, of Elizabeth, N. J.—*Improvement in Bee-Hives*.—Patent dated November 9, 1858.—The interior of the hive consists of movable frames A, arranged side by side, supported and kept in proper place at top and bottom by means of small wire staples  $d$  and  $d^1$  driven into the case, to correspond with wire hooks secured to the upper and lower corners of the frames in front. The rear part of the frame is supported by means of a pin  $f$  in the upper end of the frame, falling into a groove in the cross-piece  $B^1$ , one and a half inch wide, extending across the rear of the case, forming a support for the upper edge of the pane of glass L in the rear.

*Claim*.—The small sectional adjustable frames  $a$ , set in the main frame A by means of half round grooves and rod  $g$ , operating as described and for the purposes set forth.

No. 22,059.—ASA BLOOD, sr., of Norfolk.—*Improvement in Bee-Hives*.—Patent dated November 16, 1858.—The nature of this invention consists in so constructing a hive that the breeding bees are separated from the working bees, while the honey made can be removed without disturbing either.

*Claim*.—The main or breeding core B, in enclosing case C, in combination with the honey cores D in cap E; the several parts being constructed and arranged in the manner and for the purposes specified.

No. 22,309.—JOSEPH D. SANDERSON, of Stetson, Me.—*Improvement in Bee-Hives*.—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The inventor says: I do not claim the employment or use of space honey boxes placed around a hive and communicating with it; for these have been previously used.

Neither do I claim, broadly, ventilating the hive by having a cur-



rent of air passing vertically through it by means of apertures or openings at the top and bottom ; for this has been previously done.

Nor do I claim the perforated horizontal tubes I I, nor the box J.

But I *claim* the holes *h*, in the back of the hive, communicating with the grooves *i* in the doors E E, and the grooves *j* in the under side of the top F of the box A, in connexion with the boxes G, provided with perforated plates K, whereby the hive is perfectly ventilated, and the rain excluded.

No. 19,288.—C. SUMNER DICKERMAN, of Lansingburg, N. Y.—*Improvement in Cards for Currying Cattle*.—Patent dated February 9, 1858.—The straight wire teeth A are forced into the face side of the wooden card stock B, but not through the stock. C is the handle of the card ; but a strap or thumb-piece may be attached to the card stock to fit it for hand use, instead of the handle C.

The inventor says : I disclaim a wooden cylinder furnished with teeth, and furthermore restrict my claim to a hand card made as described.

I *claim* a hand card consisting of a flat wooden stock having straight wire teeth forced into but not through the stock, as described, and provided with a handle C, or its equivalent, to fit the card for hand use, as set forth.

No. 19,034.—SILAS F. LEFLER, of Racine, Wis.—*Improved Churn*.—Patent dated January 5, 1858.—This invention is described by the claim and engravings.

*Claim*.—A churn constructed in two compartments, A and B, the one open and the other closed, when provided with gate-ways *x* and *y*, and gate G, or their equivalents ; the whole being arranged in the manner substantially as set forth, whereby the cream during the operation of churning is passed in a continuous current through them, and the butter gathered together for the purposes described.

No. 19,117.—MICHAEL L. BAUDER, of Elyria, Ohio.—*Improved Churn*.—Patent dated January 19, 1858.—The nature of this invention consists in two sets of beaters, on two shafts, so situated in an elongated vessel that the beater on one shaft whirls all the cream in one end of the churn alternately forwards and backwards, whilst the beater on the other shaft whirls all the cream in the other end of the churn in an opposite direction ; for the purpose of driving the currents of cream violently into each other at the central parts of the churn, where the air is drawn into the cream, thus hastening the churning of the entire mass.

The inventor says : I am aware that shafts armed with beaters have been employed in circular churns, but this arrangement does not enable the beaters to control the masses of cream, and drive them through each other, as in my machine ; and I also know that such beaters have been employed with a reciprocating motion of the shafts. These I do not claim.

But I *claim* the arrangement of the elongated vessel F, provided with shafts D D, armed with beaters, in connexion with the case A, constructed and operated substantially as set forth.



No. 19,310 —ENOS PAGE, of Streetsborough, Ohio.—*Improved Churn*.—Patent dated February 9, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim the simple use of spiral dashers, arranged so as to force the cream alternately in opposite directions, being aware that such is not new.

But I *claim* the arrangement of the spiral wing dashers E E, on opposite sides and ends of the dasher shaft, in combination with a cylindrical churn body, in such a manner that the outer radial edges *d d* thereof shall respectively sweep or move in close proximity to the ends of the churn body, and their spiral edges *e e' e' e'* sweep respectively one-half the length of the periphery of the churn body, substantially in the manner and for the purpose specified.

No. 19,334.—H. D. BAKER, of Pittstown Corners, N. Y.—*Improved Churn*.—Patent dated February 16, 1858.—The operator sits in the chair C, places one foot on treadle E, and the other on the platform B. The chair C is then oscillated, being moved forward by the inclination of the body, and thrown back by the foot which rests on the platform. This movement vibrates the treadle E, which rotates shaft F and wheel G; the latter, in consequence of the guides *ff* of the bar H fitting in the grooves *e e*, giving the dash-rod *k* a reciprocating motion, two complete strokes being given to the rod at every revolution of the shaft F and wheel G.

The inventor says: I *claim* operating the dash-rod K of the churn L through the medium of the oscillating chair C, treadle E, crank shaft F, grooved wheel G, and bar H, connected with lever I; it being understood that I do not claim, separately, any of the described parts, but the whole, when combined and arranged to operate as and for the purpose set forth.

No. 19,389.—CHARLES M. VAIL, of Susquehannah Depot, Pennsylvania.—*Improved Churn*.—Patent dated February 16, 1858.—A frame for support of machinery, B churn, C dasher, D balance-wheel and belt-wheel combined, D<sup>1</sup> connecting pulley, D<sup>2</sup> strap or belt, E crank for hand, F attaching crank from pulley D<sup>2</sup> to horizontal connecting rod, G H graduated lever, I connecting shaft of lever H and lever J, L perpendicular connecting rod of levers H and J, M attaching arm and support of regulator, M<sup>1</sup> passing through connecting shaft N, N<sup>1</sup> continuation of shaft N passing through frame A, Q director passing through upper part of framework.

*Claim*.—The use of the graduated levers in connexion with the governor M<sup>1</sup>, the whole constructed as described, and operating on the dasher-staff through the director Q, keeping it in a vertical position, and avoiding friction, as set forth.

No. 19,782.—JOHN A. JORDAN, of Shelbyville, Tennessee.—*Improved Churn*.—Patent dated March 30, 1858.—The claim and engraving will explain the nature of this invention.

*Claim*.—The employment of the revolving wheel D and stationary wheel C, constructed and operating in the churn as set forth, the



bottom of the same being fitted to a stove casing in the manner and for the purposes specified.

No. 19,828.—HARVEY BROWN, of New York, N. Y.—*Improvement in Churns*.—Patent dated April 6, 1858.—A are the trailing paddles, of which there are twelve in the model; any number desired can be put in; B are the disks or wheels upon which the gearing are mounted, and by which they are moved by means of the crank; C are the shafts, D the links, and E the connecting rods.

The object of this invention is the churning of butter by agitation incidentally, but more particularly by friction, from the operation of the trailing paddles as attached to an endless chain.

*Claim*.—The arrangement of the trailing paddles, wheels, and gearing, operated substantially in the manner and for the purpose set forth.

No. 20,025.—JAMES MACNISH, of Berlin, Wisconsin.—*Improved Churn*.—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The combination of a central spiral flanché or winged agitating shaft C, with a series of encircling expressing rollers A A, a portion of which have a direct motion in one direction, while the others have an indirect motion in an opposite direction.

No. 20,062.—T. B. HARPER, of Xenia, Ohio.—*Improved Churn*.—Patent dated April 27, 1858.—In using this churn, when the winch is turned so as to couple the pinion H to the shaft D, the dashers will be made to turn in opposite directions, and cause the bevelled wings *c c* and *d d* to produce an intense agitation of the cream for the purpose of churning. In gathering butter, the winch is turned in the other direction, so that but slight agitation is produced on account of the inner dasher being stopped.

*Claim*.—The combination of the pinion H, disk L, and pin *h*, constructed and arranged as described, and operating, in relation to the winch I and dashers B C, in the manner and for the purpose specified.

No. 20,089.—G. S. RAREY, of Columbus, Ohio.—*Improved Churn*.—Patent dated April 27, 1858.—This invention consists in a novel means employed for giving a reciprocating motion to a vertical dasher from a rotating driving shaft, whereby the necessary length of stroke may be given to the dasher, and also the requisite speed.

*Claim*.—Operating or giving the dasher K a reciprocating rectilinear motion from the driving rotary wheel E, through the medium of the pinion F, crank pulley F, connecting rod G, segment H, and rack bar I, arranged to operate as shown and described.

No. 20,189.—WILLIAM BROWN, of Duncannon, Pa.—*Improved Churn*.—Patent dated May 11, 1858.—The churn dasher is agitated by giving the dasher a continuous rotating motion in the direction of the arrow; and as fast as the butter is produced the flanges collect and retain it upon the slatted wings, until the wings rise out of the



cream and assume a position which compels it to fall into the concaves of the solid hub. As the butter rolls into the concaves of the hub, the milk escapes between the slats of the wings.

*Claim.*—The combination in a churn dasher of a series of slatted agitating and separating wings *c c c c*, a series of gathering and retaining flanges *e e e e*, and a solid concaved roll-forming hub *a*; all substantially as and for the purposes set forth.

No. 20,740.—WILLIAM H. TAMBLING, of Berlin, Wis.—*Improved Churn.*—Patent dated June 29, 1858.—This invention consists in arranging a skeleton semi-sphere *H* on the upper side of the upper dasher *G*<sup>1</sup> of reverse-acting or forward and back acting churns; so that the tendency of the cream or milk to fly out centrifugally will be counter-acted and its direction reversed, and it rolled over and compelled to move centripetally, or toward the centre.

*Claim.*—Arranging a skeleton semi-sphere *H* on the upper side of the upper dasher *G*<sup>1</sup> of reverse-acting or forward and back acting churns, substantially as and for the purposes set forth.

No. 20,730.—ALFRED ROSE, of Penn Yan, N. Y.—*Improvement in Churns.*—Patent dated June 29, 1858.—The arm or cross-piece *D* is attached to the lower end of the staff *c*, and is made to support the cam-wheels *E E* and *F F*. The wheels *E E* are placed on the upper side of the piece *D*, and the wheels *F F* on the under side. *H* is a semicircular support for the upper end of the shaft.

*Claim.*—The cam-wheels *E E* and *F F* and the part *D*, constructed and arranged in the manner represented and for the purpose set forth.

No. 20,803.—JAMES MACNISH, of Berlin, Wis.—*Improvement in Churns.*—Patent dated July 6, 1858.—By this invention the cream or milk is subjected to a thorough friction and expressing action, and the globules or sacs which contain the fatty particles of butter are effectually broken. This invention is designed to supersede the old agitating process of making butter.

*Claim.*—Effecting the breakage of the globules or sacs which contain the fatty particles of the milk or cream by the combined forces of compression and friction, employing for producing these forces a roller *D*, in combination with a stationary concave *E*, the roller revolving within and coming in contact with said concave, substantially as and for the purposes set forth.

No. 20,804.—JAMES MACNISH, of Berlin, Wis.—*Improvement in Churns.*—Patent dated July 6, 1858.—This invention is designed for producing butter by friction. The friction principle is claimed in its application to upright churns which have two dashers revolving in opposite directions.

The inventor says: I *claim*, first, the combination of the inner set of tangentially set-spring wings *I I* with the outer set of wings *G*<sup>1</sup> *G*<sup>1</sup> *G*<sup>1</sup> *G*<sup>1</sup>, substantially as and for the purposes set forth.

Second. The combination of the friction plates *H J* with the two sets of spring wings and the churn tub, substantially as and for the purposes set forth.



No. 20,898.—N. H. SHERBURNE, of Campton, Illinois.—*Improved Churn*.—Patent dated July 13, 1858.—This invention has reference to the agitator end, and consists in two systems of blades rotating in opposite directions, and capable of separate lateral adjustment.

The inventor says: I disclaim the mere rotation of the two parts of the agitator in opposite directions, and also the construction of agitators with movable parts broadly considered.

But I *claim* the combination of heads  $H\ H^1$ , slides  $B$ , blades  $C\ C^1$ , and opposite rotating shafts  $S\ S^1$ , constructed, arranged, and operating substantially as and for the purpose set forth.

No. 20,878.—JAMES HATFIELD, of Falmouth, Ind., and HENRY M. GOLDSMITH, of Burlington, Iowa.—*Improvement in Churns*.—Patent dated July 13, 1858.—The nature of this improvement is such that while there is a double-acting compound agitator, at the same time the adjustable brakes  $F\ F$  at the bottom form a powerful reaction of the cream, thus expediting the process of butter-making. The adjustable belt and brakes are easily taken out and washed, leaving but the smooth surface of the vessel to clean.

The inventors say: We *claim*, first, the manner and form of inserting the adjustable brakes, as described and shown.

Second. The basin or reservoir lid, with the glass slide attachment, as described and shown.

Third. The quarter-circle wings, or dashers, at each end of the shaft, in the form and position described and shown.

No. 21,010.—M. R. MARCELL, of Dansville, New York.—*Improved Churn*.—Patent dated July 27, 1858.—This invention consists in throwing a current of atmospheric air through the dasher into the churn, and causing it to issue in fine jets from the dasher-shaft  $b$ , and also from the wings of the dasher  $c$ , below the surface of the cream or milk in the churn, by puncturing both the hollow dasher-shaft and the wings with small holes below the surface of the fluid in the churn; by which means the mingling of the atmospheric air with the whole mass of the fluid in the churn  $A$  is more rapid. Also in arranging in a churn a series of double punctured and curved plates, which are riveted at the exterior angle, with their convex surfaces toward each other, and facing the centre of the churn, so that the convex surface of one plate forms the deflecting surface of the fluid passing through the openings of the adjacent plate; thus the mechanical action of the fluid is increased, and the formation of butter facilitated.

The inventor says: I do not confine myself to the precise position or arrangement of the fan-blower, as it may be placed on the side instead of the top of the churn, and connected with the driving-shaft by bevel or spur gearing.

I *claim*, first, in combination with the blower, the dasher constructed substantially as described, whereby a current of air blown through the dasher-shaft is caused to issue from the dasher, below the surface of the fluid in the churn, in fine jets, for the purpose set forth.

Second. The double deflecting plates, constructed substantially as described, in combination with a churn box, for the purpose as set forth.



No. 21,176.—JAMES S. APPLETON, of White River Junction, Vermont.—*Improved Churn*.—Patent dated August 17, 1858.—The vessel *m*, in which the churning operation is performed, is of a cylindrical shape, and may be made of any suitable material. Any form of dasher may be combined with the dasher shaft *j* which may be deemed expedient.

The requisite reciprocating movements are imparted to the dasher shaft *j*, and the vessel *m* is secured in a swinging frame, whilst the said movements are imparted to its dasher in such a manner that the said vessel can freely adapt its movements to the swinging movements of the churn dasher.

The inventor says: I *claim* securing the churning vessel *m* within a freely swinging frame, when the dasher of the churn is operated by means of a crank-shaft, pitman, and vibrating beam, constructed, arranged, and operated as set forth.

No. 21,374.—JOHN F. SMITH, of Galen, New York, and WIGHTMAN BROWN, of Rose, New York.—*Improved Churn*.—Patent dated August 31, 1858.—This invention consists of a box or frame containing a cylindrical case, divided by a central vertical partition into two chambers of nearly equal capacity. In one of these is arranged the clock work or machinery for operating the churn; the other constitutes the milk chamber, and contains the beaters. The driving machinery is placed in a secondary or interior case *K*, which is provided with the sliding covers *l l*, which close tightly while in operation, and prevent the oil or odor of the frictional parts from reaching and tainting the butter.

The inventors say: We do not claim as our invention an automatic churn.

But we *claim* the combination and arrangement of the cylinder divided into two chambers, for the purposes described, by the partition *M*, the close interior case *R*, adjustable vane blower and regulator *E*, refrigerating passage *Y*, and ventilators *v v*, operating conjointly, as and for the purpose specified.

No. 21,501.—DANIEL JOHNSON, of New York, N. Y.—*Improved Churn*.—Patent dated September 21, 1858.—The nature of this invention consists in the employment of two or more rollers, when placed horizontally and with their peripheries touching or nearly touching one another, in combination with a revolving dasher which is arranged underneath said rollers and in the same box or chamber with the same.

*Claim*.—The employment of two or more rollers *D*, when placed horizontal and with their peripheries touching or nearly touching one another, in combination with a revolving dasher, which is arranged underneath said rollers and in the same box or chamber with the same, substantially as and for the purposes set forth.

No. 21,575.—ANDREW RALSTON, of West Middletown, Pa.—*Improved Churn*.—Patent dated September 21, 1858.—The nature of



this invention consists in an arrangement for agitating, cutting, fanning, and separating butter from the serous part of milk.

*Claim.*—The arrangement of the openings *o* and *v* in the circular part of the fan or beater case, the valve *x*, the gathering valve *h*, the conductor *u*; the whole being arranged and combined as described and represented for the purpose specified.

No. 21,637.—GEORGE H. FARRINGTON, of Xenia, Ohio, assignor to D. B. TIFFANY, of said Xenia.—*Improved Churn.*—Patent dated September 28, 1858.—A represents the box which serves to hold the cream. B B are the dasher-bearers, which are secured to the shafts *a a*. These shafts pass through the bearers and have their bearings in the sides of the box; *c c* are the double concavo-convex dashers, which are concave on the one side and convex on the other, the convex sides being secured by the bearers B B.

*Claim.*—The employment of the double concavo-convex dashers, constructed, arranged, and operated in the manner specified, and for the purpose set forth.

No. 21,871.—JAMES H. BUMP, of Morris, New York.—*Improvement in Churns.*—Patent dated October 26, 1858 —A is the case or body of the churn, with a lid B, on which a chamber C is formed, which chamber is provided with a lid D. At the centre of the chamber C, and in the lid B of the case A, a vertical tube E is fitted or placed centrally, said tube forming a direct communication between the interior of the case A and chamber C.

*Claim.*—The arrangement and combination with the churn of a chamber C, through which the air that mingles with the cream is made to circulate substantially as and for the purpose shown and described.

No. 23,093.—CHARLES W. STAFFORD, of Burlington, Iowa.—*Improved Churn.*—Patent dated November 16, 1858.—This churn is operated by means of a segmental rack S working into the pinion N, and to which a reciprocating motion is given around the pivot M by means of lever G. The agitation of the cream is effected by means of the parallel arms 1, 2, 3, 4, and the floats X X X, the latter being set obliquely to the direction of the former, and all standing fixed perpendicularly to the shaft C. Attached to slides, which stand vertically along the ends of the arms 1, 2, 3, 4, is a zone of tin or sheet metal Z Z, having radial projections 10, 10, on its interior surface. This zone is intended to be raised or lowered along the slide, so as to accommodate itself to the quantity of cream in the churn, the upper edge being intended to rise to the surface of the cream, or a little higher, so that the radial projections may gather the butter as it is formed.

The inventor says: I am aware that many of the contrivances described have in some shape been substantially used for a like purpose before. I do not, therefore, claim them separately, except as stated.

But I *claim* the general arrangement and adaptation of parts,



substantially as set forth, by which a cheap, light, convenient, and effective churn is produced.

No. 22,090.—HARRY ROBIE and ROYAL V. ROBIE, of Eaton, New York.—*Improved Churn*.—Patent dated November 16, 1858.—B is the beater, being perforated with the diamond hole, each alternate beater having a like perforation. C represents one of the remaining beaters, having a concave extremity.

The inventors say: We are well aware that the beaters placed spirally around a horizontal shaft is an old and well-known device. We do not claim, therefore, any of the parts separately or in the abstract, irrespective of the arrangement as shown and described.

But we *claim* the perforated beater B, in combination with the alternate beater C, presenting a concave extremity in connexion with the passage formed by the narrow base of the beaters, the several parts being constructed and arranged upon the shaft A, with respect to each other, in the manner and for the purposes set forth.

No. 20,545.—ADDISON G. BRUSH, of Great Bend, Pa.—*Improvement in Operating Churns*.—Patent dated June 15, 1858.—The end of the arm A at E is moved by the projecting arm c of the tread-wheel until it slips over the arm c, when the lower end of the arm A is immediately caught by another projecting arm c of the tread-wheel on the opposite side of it, and moved in an opposite direction to the first arm A; and when that arm also escapes, the arm first moved is again caught and moved as before. Transversely through the shaft B is inserted the arms F F horizontally, and which move with the shaft B. To the arm F at H is attached the rod G, and to the lower end of this rod is fixed the dasher.

*Claim*.—The arrangement of the revolving platform D, having short arms or tappets c c c attached and operating the churn dasher, in connexion with arms A A and F and shaft B, the whole constructed as specified.

No. 22,022.—JOSEPH FORSYTH, of Wheeling, Virginia.—*Improvement in Operating Churns*.—Patent dated November 9, 1858.—The nature of this invention consists in combining the carriage D with the movable pulley-head H H in such a manner that the said carriage will move with the head when it is required to stop or start, the motion of the churn thereby keeping the shafts of the pulleys and churn in line. It also consists in the movable platform K, which can be raised or lowered in order to bring the shafts of different sized churns in line with the pulley shaft.

*Claim*.—The combination of the carriage D with the movable platform K, substantially as described, and for the purpose set forth.

No. 21,221.—MOSES SWAN, of Potter Hill, New York.—*Improvement in Operating Churns, &c.*—Patent dated August 17, 1858.—The nature of this invention consists in the arrangement of mechanism for combining the churn tub with the wash tub, and giving the plunger and dasher



of the same an up and down movement, and at the same time imparting a rotary motion to both tubs.

*Claim.*—The arrangement of mechanism specified, for combining the churn tub with the wash tub, and giving the plunger and dasher of the same an up and down movement, and at the same time imparting a rotary motion to both tubs, substantially as and for the purposes set forth.

No. 20,891.—WILLIAM NEWELL, of Philadelphia, Pennsylvania.—*Improved Apparatus for Cleaning and Polishing Coffee.*—Patent dated July 13, 1858.—The nature of this invention consists in augmenting and more evenly distributing the heat through the coffee in the cylinder B, and increasing the friction and motion by the use of woven wire or open wire work partitions *g*, flanges and spaces *h*.

The inventor says: I *claim*, in combination with the cylinder which contains and furnishes heat to the coffee, the open wire diaphragms or partitions for furnishing rubbing surface, substantially as described.

I also claim, in combination with the open wire rubbing surfaces, the flanges and heating tubes, as set forth.

No. 19,142.—J. D. HEATON and WILLIAM A. CLARK, of Dixon, Illinois.—*Corn-Husker.*—Patent dated January 19, 1858.—In using this invention, the person to husk stands on the side of the machine at W, and, taking hold of the valve handle A<sup>2</sup>, raises it, and having the unhusked corn convenient, an ear at a time is picked up, and having the butt end towards the knife, the encased ear is placed across the bolsters D R, the butt end of the ear resting in a line as near as possible against the cutting-blade J J. This done, the hammer H H H<sup>2</sup> is let fall, when the stub or butt is severed from the ear; and at the same time the husk is split lengthwise on the under side of the lateral movement back and forth by the slitting blade or lance knife K. The instant the stub is severed and the husk split, the concussion striker N, by its weight, knocks the ear of corn from the husk below, through the split, whence the ear, being released, falls down through the opening Q, whilst the husk is kicked off entirely from the frame forward by the prongs R<sup>2</sup>, they being actuated by the rod L.

*Claim.*—The hammers H and N, the bolsters R D, in combination with knives J J and E K, and double prong fork P<sup>2</sup>, when the whole is constructed and arranged for joint operation, in the manner and for the purposes set forth.

No. 19,325.—ABBOTT R. DAVIS, of East Cambridge, Massachusetts, assignor to Himself and B. D. MOODY, of said East Cambridge.—*Improvement in Corn-Huskers.*—Patent dated February 9, 1858.—This invention consists in the use of a conical cylinder, having its axis in a horizontal plane, by which the inclined surface of the cone gives the required feed to the ear; and in the employment of short stripping teeth in conjunction with a stationary guard, by which the ear is placed immediately in contact with the cylinder, when it is stripped without injuring the grain.

*Claim.*—In combination with the stationary guards H and F, cone C, and knife E, the elastic or spring rests *e*, operating substantially as described.



No. 19, 326.—DANIEL LOMBARD, of Boston, Mass., assignor to Himself and GEORGE F. RICHARDSON, of said Boston.—*Improvement in Corn-Huskers*.—Patent dated February 9, 1858.—The nature of this invention will be understood by referring to the claim and engravings.

The inventor says; I *claim* a corn-husker, constructed of a chuck mounted on a tubular shaft or provided with a central cavity, and having cutters and spurs arranged with respect to the bore or cavity substantially as specified.

No. 19, 320.—F. M. WALKER, of Greensboro, N. C.—*Improvement in Corn-Huskers*.—Patent dated February 9, 1858.—The ear of corn is thrust into the opening *d*, and the butt cut off by the knives M M, and then forced into the end of the cylindrical knife O, where it is held firm by the spring knives R, while the knife O cuts and loosens the husk; it is then thrown up between the guide bars L L and rests on top of the cone H, while the husking teeth I I strip off the husks, and by means of the vibrating springs J J the husk is thrown off under the cone, while the ear, cleaned of the husk, passes off at the lower end of the guide box.

*Claim*.—I claim the cone H, armed with the spring teeth J I, in combination with the guide bars LL, and upright piece F; the whole being constructed, operated, and arranged in the manner and for the purpose set forth.

No. 19, 458.—L. F. WARD, of Marathon, N. Y.—*Improvement in Corn-Huskers*.—Patent dated February 23, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I *claim* the belt *k*, armed with teeth L L, in combination with the stationary prongs N N, which catch and hold the husks and yield to let the ears of corn pass or be carried forward by the belt and teeth, so as to separate the corn from the husks.

And in combination with the belt *k*, armed as above described, I claim the wires M M, to clear the husks from the underside of the ears of corn.

I claim the wires or prongs Q Q, or their equivalents, to clear the husks from the teeth L L on the belt *k*, substantially as described.

I claim the arches G G, constructed and arranged substantially as described, in combination with the rotating knives for severing the butt-stalk from the ears of corn.

No. 19, 512.—WARNER PICKETT and ANDREW HILLS, of Naugatuck, Conn.—*Improvement in Corn-Huskers*.—Patent dated March 2, 1858.—This improvement consists in the use of a husking cylinder set with rings, or sections of card teeth or points, and an adjustable curved bar or trough, for the ears of corn to slide in, so that they will fall against the card teeth on the cylinder; and a series of clearers to remove all the husks from the card teeth as the cylinder revolves; and a circular saw to cut off the stumps or shanks of the ears.

The inventors say: We are aware that the cylinder has long been used, and that the circular saw and the inclined plane, and various



forms of curves are well known in mechanics, and that each have been set at various angles. We therefore do not claim either of them, or their angles as such, as our invention.

But we *claim* the combination of the inclined cylinder B with the curved bar or trough C and the clearer D, when the whole is constructed, arranged, and made to produce the result substantially in the manner and by the means set forth.

No. 19, 552.—JOSEPH FAGAN and JAMES L. FAGAN, of San Antonio river, Texas.—*Improvement in Corn-Huskers*.—Patent dated March 9, 1858.—This invention consists in the employment of a rotating wheel C, provided with cutters *f*, and spurs or projections *a*, in connexion with two concaves, a stationary F, and a vibrating one F<sup>2</sup>, the stationary concave having slitting hooks; they being arranged so as to make a husker.

*Claim*.—The rotating wheel C, provided with spurs or projections *a*, and with cutters *f*, actuated by the cams F<sup>1</sup>, or their equivalents, in combination with the stationary and movable concaves E F<sup>2</sup>; the whole being arranged to operate substantially as and for the purpose set forth.

No. 20,163.—CHARLES N. LEWIS, of Seneca Falls, N. Y.—*Improved Corn-Husker*.—Patent dated May 4, 1858.—In the engravings B is a cast-iron box, firmly attached to the base; A C is the blade, which is a vertical lancet-shaped piece of steel riveted to the box B; D is a yielding gauge which receives the stem of the ear; and H is the hand lever, having in its head a movable arm I, which is actuated by striking the projection *a* on the standard G.

*Claim*.—The combination and arrangement of the lever H, tilting arm I, blade C, and yielding gauge D, operating conjointly substantially in the manner and for the purpose described.

No. 20,223.—DANIEL C. SMITH, of Tecumseh, Mich.—*Improvement in Corn-Huskers*.—Patent dated May 11, 1858.—Figure 1 is a perspective view of this machine, A is the forceps, B knife, C fork, E spring, F thumb-screw, G lever, D plate, H friction roller, I pivot, J wedge, K bolts, L post, M slot, *w* ring, and N strap. Figure 2 represents the machine open, preparatory to the act of husking an ear of corn from the stalk, and attached to the belt O at P; the belt is buckled around the waist of the person using it, and also attached to strap N by means of ring *w*.

The inventor says: I do not claim the forceps separately.

But I *claim* the combination of the forceps A with the wedge J, roller H, lever G, post L, with its slot *m*, the knife B, and plate D, when these several parts are arranged as and for the purposes set forth.

I also claim, in combination with the forceps A, the spring E, fork C, and thumb-screw F, when arranged and operated as and for the purposes specified.

No. 20,253.—JOSEPH CAWTHRA, of Rochester, N. Y.—*Improvement in Corn-Huskers*.—Patent dated May 18, 1858.—A piece L provided



with teeth above the husker and at the end of the rods of the grate Y, which prevents the ear being carried off the grate by the husker *k*, and also clears it of any refuse matter which adheres to it. The follower O assists in carrying the ears down the grate.

*Claim.*—The inclined reciprocating husker *k*, constructed as described, in combination with stationary teeth I, the inclined curved grate Y, and the slide O, when these several parts are constructed, arranged, and operated substantially as and for the purpose set forth.

No. 20,360.—B. B. MEACHAM, of Ridleyville, Fla.—*Improved Corn-Husker.*—Patent dated May 25, 1858.—In this invention a cutting device is attached to a wheel which is placed below a trough or spout, the cutting device and wheel being so constructed that, as the ears of corn are fed down to it, the butts will be cut off from the ears at their junction with them, and the husks stripped off, and the husked ear discharged by another spout.

*Claim.*—The wheel E, grooved circumferentially, and provided with the knife or cutter *g*, forked plate *h*, and oblique partition or ledge *c*, and arranged relatively with the spouts C G so as to operate as and for the purpose set forth.

No. 20,568.—LUCIUS LEAVENWORTH, of Trumansburg, N. Y.—*Improvement in Corn-Huskers.*—Patent dated June 15, 1858.—In fig. 1, *a a* represents the chain, *b b* the arms, *c c* the rollers on the pins; *d* is the lever fastened by the hinge *f* to the frame *e*. The corn is placed beneath the rollers, (the stalk being above the operator's hand,) and the lever is forced forward, by which motion the cutter is made to separate the cob from the stalk. The motion of the lever forward being continued, the chisel draws the husks forward and outward.

The inventor says: I *claim* attaching to the arm or other part of the chair the two rollers, or their equivalents, in the relative position and for the purpose described.

I also claim the combination of the hinged lever *d*, curved chisel *g*, and rollers *c c*, with a seat or chair, in the manner and for the purpose described.

No. 20,637.—BURTON HAZEN, of Cincinnati, Ohio.—*Improvement in Corn-Huskers.*—Patent dated June 22, 1858.—This invention consists in the employment of a stationary and rotating knife I G, and rotating hammer H, arranged for the purpose of stripping the husks from the ears. The invention also consists in the employment of a rotating cylinder of slitting knives, fitted within a cylindrical yielding shell, also provided with slitting knives, and arranged and operated so as to slit the husks for upholstery purposes.

*Claim.*—The stationary and rotating knives I G, and rotating bar or hammer H, combined and arranged to operate as and for the purpose set forth.

No. 20,653.—LEMUEL R. MEARS, of South Abington, Mass.—*Improved Corn-Husker.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.



The inventor says: I *claim* an improved corn-husker, as made of a combination of a breast shield, a supporting bar, and cutting apparatus; the breast shield to be applied to a person, and the cutting apparatus and supporting bar to be operated in manner as specified.

And I particularly claim the arrangement of the cutters and bearer, viz: so as to extend in opposite directions from the supporting bar and the slider, in manner and for the purpose as explained.

No 20,849.—LENARD A. GROVER, of Roxbury, Mass., assignor to Himself and N. T. SPEAR, of Boston, Mass.—*Improvement in Corn-Huskers*.—Patent dated July 6, 1858.—This invention consists in the employment of shears or a cutting device, tilting bed or hopper E, and a rotating cone B, and guide plates D D; the whole forming a very simple and efficient husker.

The inventor says: I do not claim a revolving toothed cone B and toothed plate D, separately; for they, or their equivalents, have been previously used.

I *claim* the rotating toothed cone B, plates or boards D D, one being provided with teeth  $b^1$ , in combination with the tilting bed or hopper E, and the vibrating knife G, and stationary knife J; the whole being arranged to operate as and for the purposes set forth.

No. 21,363.—CHARLES J. C. PETERSEN, of Davenport, Iowa.—*Improvement in Corn-Huskers*.—Patent dated August 31, 1858.—A description of this invention is too long for a place in this volume; the reader will obtain an idea of it by examining the claim and engravings.

The inventor says: I *claim*, 1st. The feeder, when constructed, arranged and operating substantially as described for the purpose set forth.

2d. The butter, when constructed, arranged, and operating substantially as described for the purpose set forth.

3d. The husker, when constructed, arranged and operating substantially as described for the purpose set forth.

4th. The fanner, when constructed, arranged and operating substantially as described for the purpose set forth.

5th. The receiver, in combination with the fanner, husker, butter, and feeder, when these several parts are arranged to operate conjointly as and for the purpose specified.

No. 21,522 —N. T. SPEAR, of Boston, Mass.—*Improvement in Corn-Huskers*.—Patent dated September 14, 1858.—This invention consists in the use of a rotating bevelled-face wheel, armed with teeth, and used in connexion with conical taper rollers, one or more having their journals fitted in yielding bearings, and arranged in such relation with the wheel that the ears of corn are allowed to descend by their own gravity down the “bite” or angle formed by the contact of the wheel and rollers, and the husks stripped therefrom.

*Claim*.—The combination and arrangement of the toothed bevelled wheel B, provided with one or more faces, with the smooth conical rollers D D, one or more, and boards E, when these several parts are



united together and arranged for joint operation, substantially in the manner and for the purpose set forth.

No. 22,440.—S. W. MAY, of Galesburg, Ill.—*Improvement in Machine for Picking Corn*.—Patent dated December 28, 1858.—A is the main frame mounted on wheels G G, and so constructed as not to break down the cornstalks; B B are thills fastened firmly to the upper cross beam U of frame A by braces C C, and also to A by beam D, and in a central position, so that the horse may walk between the two rows picked; E E are elevators to straighten up leaning or falling stalks; L L are strong bars, each having a channel X opening to receive the stalks at the front end of the bar, and extending back nearly the whole length of it.

*Claim*.—The bars L, the elevators E, the fingered belt R, the frame A, the crank with its pitman O, or their mechanical equivalents; the whole being combined, arranged, and operated substantially as and for the purposes set forth.

No. 19,160.—JEREMIAH P. SMITH, of Hummelstown, Pa.—*Improved Corn-Shell*er.—Patent dated January 19, 1858.—In using this machine, the ears of corn, in passing beneath the cylinder C, are first acted upon by the forward or projecting portions of the ribs E E, which shell or start off the grain at intervals, and thus render the remaining grain more easily to be removed by the teeth *a a* or ridges *b b* of the concave I and of the rear portion of the ribs acting together. Both the ribs and the concave yielding separately, they respectively adapt themselves to different sizes of ears without disturbing the action of each other.

*Claim*.—The ribs E E, arranged and operating in combination with the concave I substantially in the manner and for the purpose specified.

No. 19,253.—JOSEPH R. LINDNER, of Cincinnati, Ohio.—*Improved Corn-Shell*er.—Patent dated February 2, 1858.—A is a drum, having the form of a conic frustum, and rotating upon a vertical shaft B; *a* are teeth; C is a cast iron concave with teeth *c*. The drum being rotated, an ear of corn dropped point downwards through the hopper D into the passage I is at once turned briskly round, drawn downward, and shelled by the teeth *a*; the teeth *c* in the concave serve to hold the ear to enable the teeth *a* to completely remove the grain, while the elasticity of the case G causes ears of any size to be held against the drum A and concave C with a yielding pressure.

*Claim*.—The elastic case G *g*, constructed as set forth in the described combination with the concave C *c* and drum A *a*.

No. 19,603.—DANIEL G. GREENE, of North Bridgewater, Mass., assignor to Himself and GEORGE H. GREENE, of said North Bridgewater.—*Improvement in Corn-Shelling Machine*.—Patent dated March 9, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that a double tapering cylinder for



shelling corn was patented by James Ross, April 12, 1833, and therefore I make no claim to said device.

But I *claim* the arrangement of the single tapering roll *b*, concave shells *d d*<sup>1</sup>, slots *f f*<sup>1</sup>, spring *g h*, and spout *i*, as shown and described, whereby the ear of corn is always kept in horizontal position, and the cob is prevented from being forced diagonally under the roll, and is thus saved from being crushed or broken, together with other advantages, all as set forth.

No. 19,809.—PETER BERGEN, of New York, N. Y., assignor to JANE ANN BERGEN, of said New York.—*Improvement in Corn-Shellers*.—Patent dated March 30, 1858.—This invention is an improvement in that kind of corn-shellers wherein the corn is to be taken off the cob by having the ear passed between the face of a cylinder *b* armed with teeth or projections *c*, and a cradle or concave *d* similarly armed; and it consists in so constructing the feeding-hopper and the cradle, and so connecting them with the shelling-cylinder, that but one ear of corn will be receiving the action of the shelling parts at the sametime.

*Claim*.—The combination of the delivery flap or bottom *h* of the hopper, the piece *P*, the pins *m* on the shelling-cylinder, the cradle *d*, and the springs *e* and *f*, when these several parts are constructed and relatively arranged as described, to operate in the manner and for the purposes set forth.

No. 19,862.—THOMAS W. McFARLAN, of Salem, Ohio, and LEWIS H. DAVIS, of West Chester, Pa.—*Improvement in Corn-Shellers*.—Patent dated April 6, 1858.—In operating this machine the ears of corn are fed through the chutes of the head *E*, and guided to the picker-wheels *B C C* by the elastic linings. Being shelled, the grain and cobs fall upon the riddle *G*, the cobs being prevented from falling behind the head by the guard *I*. At this place they are separated, the former falling through the bars of the riddle, and the latter continuing to move over the riddle and escaping under the flexible partition *R*. As the grain passes from the riddle it falls upon the inclined board *F* and descends into the transverse spout *J*, being separated from the chaff by the blast of the fan *L*.

The inventor says: I *claim* the gutter-shaped guard *I*, arranged between and underneath the bevel picker-wheels, and overlapping the head of the vibrating riddle, substantially as and for the purposes set forth.

Second. Having the head end of the riddle rest upon a horizontal projection of an inclined board, substantially as and for the purpose set forth.

Third. Lining the spouts or chutes of the head *E* with a thin pivoted or yielding metal lining, in the manner and for the purpose set forth.

No. 19,915.—AUGUSTUS B. DAVIS, of Philadelphia, Pa.—*Improvement in Corn-Shellers*.—Patent dated April 13, 1858.—This invention consists in combining an endless band or chain of toothed plates with



an angular barred grating, for the purpose of stripping the kernels from ears of corn in a rapid and effectual manner.

*Claim.*—The endless band or endless chain of toothed plates G, in combination with the angular grating N, when the same are arranged for joint operation substantially as and for the purpose set forth.

No. 20,003.—ELMON PARKER, of Baltimore, Md.—*Improvement in Corn-Shellers.*—Patent dated April 20, 1858.—Upon the board at the end of the machine, which serves as a hopper, are put two spring plates *d d*, extending from near the centre of the wheels, about two-thirds the distance to the outer edge, to press the ears to the wheels while shelling. In order to discharge the cob, two rollers *e e* are placed near the outer edge of one wheel and the other in the same position to the other wheel. Under the wheels are fixed two apron boards to guide the corn down near the middle of the machine over a box. The ears of corn are fed to the machine near the centre of the wheels, and will be drawn down either side and discharged from the machine.

*Claim.*—The combination of the cylinder A, the spring back *d*, and rollers *e*, when they are constructed and arranged with respect to each other as set forth for the purpose specified.

No. 20,266.—RAY GREEN, of Cussewago, Pa.—*Improvement in Corn-Shellers.*—Patent dated May 18, 1858.—The corn to be shelled is dropped into the hopper L, and rolls down between the strips 1 2 3 4 5, and by them is carried down and around the cylinder B, and is pressed up against the cylinder by the fingers I I I I with sufficient force to shell the corn; while the spring R accommodates the concave to the size of the ears of corn, pressing the point and butt of the ear up equally. The corn, when shelled, passes between the peices of wood T and out through the spout N.

*Claim.*—The shelling cylinder B, constructed as described, revolving within the feeding cylinder in combination with the feed-regulating slide J, concave T T, and springs R, fingers I, discharging apron H, and spout N, when the several parts are constructed, relatively arranged, and operated in the manner and for the purposes set forth.

No. 20,650.—WILLIAM H. MAIN, of Liverpool, Ohio.—*Improvement in Corn-Shellers.*—Patent dated June 22, 1858.—The nature of this invention relates to the use of the balance wheel G upon the revolving sheller, to the form and arrangement of the shellers, and the manner of attaching them to the arms H of the balance wheel; and also the devices for delivering the cob from the machine by means of spiral cam V.

The inventor says: I *claim* the use of the balance wheel G, in combination with the open hub jaws P, teeth R, and springs O, when arranged in the manner substantially as set forth.

I also claim a series of spur wheels T, arranged with spiral springs and sliders or their equivalents, as described, and in combination therewith the spiral cam V, by which the spur wheels are driven, when constructed and operated in the manner and for the purpose specified.



No. 20,831.—PASCHAL P. TAFT, of Taftsville, Vermont.—*Improvement in Corn-Shellers*.—Patent dated July 6, 1858.—This invention consists in the employment of a rotating toothed or corrugated cylinder C, in connexion with the reciprocating toothed plates L L arranged to move in opposite directions, whereby corn may be more effectually shelled from the ear than by any of the machines hitherto constructed for the purpose.

The inventor says: I am aware that a toothed rotating cylinder and concave is an old and well-known device, and has been used for shelling corn, and for various crushing and grinding purposes; I therefore do not claim broadly such device.

But I *claim* the rotating toothed cylinder C, in combination with two or more reciprocating toothed concaves L L, moving simultaneously in opposite directions; the parts being arranged within a suitable box, case, or framing, and operated substantially as and for the purpose set forth.

No. 21,174.—CALVIN ADAMS, of Pittsburg, Pa.—*Improvement in Corn-Shellers*.—Patent dated August 17, 1858.—Q Q represent the shelling wheels of the corn sheller; they are formed with a number of arms *d*, each of which is of a concave or a V-shape, which strip the grains from the ear as it is fed along. *d*<sup>1</sup> represents cogs, which, at the same time, constitute the elongation of the arms *d*, with this difference only, that they extend a shorter distance from the centre of the shaft than the arms *d*. By these means the wheel Q is in gear with the wheel H, which latter is in gear with the wheel H<sup>1</sup>, which, in turn, gives motion to the shaft Q. The shafts C C<sup>1</sup>, together with their corresponding parts, are duplicates; and the wheels Q<sup>1</sup> and H<sup>1</sup> are similar to those of Q and H. W represents a stationary guide, secured to the bolt B; the object of this guide is to direct the ears of corn to the centre of the machine, and from the upper to the lower shellers, when they are fed in and carried past the arms *d* of the shelling wheel Q, which is the upper of the two sets.

The inventor says: I *claim* the combination of the pairs of adjustable and yielding wheels C and C<sup>1</sup> with the pairs of shelling wheels Q and Q<sup>1</sup>, when constructed and operating substantially in the manner and for the purpose described.

I also claim the manner of connecting the shafts C and C<sup>1</sup> with their respective cog-wheels H<sup>1</sup> H, by means of the pivots *a a* and conical hub E, or their equivalents; so that whilst they may revolve together, the shafts may play back and forth to adapt the feeding wheels to the various sizes of the ears of corn to be shelled, substantially as described.

No. 21,594.—A. ADAMS, of Sandwich, Illinois.—*Improvement in Corn-Shellers*.—Patent dated September 28, 1858.—The nature of this invention consists in the employment of a swinging spring-plate, which is concave on its inner face, elliptical on its lower and front edge, and concave on its upper edge, in combination with an inclined guard, which is curved or convex on its under surface, when said plate and guard are arranged in the specified relation to each other,



and to the picker-wheel and its shaft, and to the cob discharge passages of a corn-sheller.

*Claim.*—The combination of the yielding plate H and the guide bar or plate J, with the wheels C and E and spout G, provided with the elastic plate F, when these several parts are constructed and arranged for joint operation, and relatively with respect to each other and the discharge passages, in the manner and for the purposes set forth.

No. 21,288.—LOREN J. WICKS, of Racine, Wisconsin.—*Improvement in Corn-Shelling Machines.*—Patent dated August 24, 1858.—In using this machine the larger portion of the corn, as it is shelled from the ear, falls directly upon the apron P, and, passing over the screen Q to clear it from chaff, is delivered at the end of the apron at the outside of the machine into a proper receptacle, or upon the floor. Such portion of the corn as may be carried into the tube N is prevented from being thrown out through the tube with the cob by the flap-valves O O<sup>1</sup>, the first of which deflects it to the bottom of the tube, and the last forces it to fall through the grating T on the apron P, to be delivered with the corn before named. The cob is carried into the tube N by the action of the spiral teeth upon the cylinders D D<sup>1</sup>, and falls by its own weight through the tube, past O O<sup>1</sup>, to the outside of the machine.

*Claim.*—The employment of the screen Q in the apron P, in connexion with the tube N, provided with valves O and O<sup>1</sup> and grating T, when these several parts are constructed and arranged with respect to each other, and to the shelling wheel F and cylinders D and D<sup>1</sup>, and operate conjointly therewith, in the manner and for the purpose specified.

No. 22,206.—GEORGE W. TOLHURST, of Liverpool, Ohio.—*Improvement in Corn-Shelling Machines.*—Patent dated November 30, 1858.—The nature of this invention consists in providing the levers or jaws of a corn-sheller with spur wheels set at an angle around the opening where the ear of corn is presented, so that by rolling said spur wheels around the cob the ear is fed to the shellers and press rollers.

*Claim.*—The combination of the spur wheels D<sup>2</sup> D<sup>2</sup> D<sup>2</sup> D<sup>2</sup>; these several parts being constructed, arranged, operated, and operating in the manner and for the purpose specified.

No. 21,254.—FRANCIS M. GREEN, of Sullivan, Illinois.—*Improvement in Machines for Cutting up Cornstalks in the field.*—Patent dated August 24, 1858.—The nature of this invention consists in a new machine for simultaneously felling and cutting up cornstalks.

*Claim.*—The knife cylinder D, constructed and operating as described, in combination with the supporting wheels g g and the mechanism for operating the same, the whole arranged substantially as described for the purposes set forth.

No. 19,561.—HENRY HERSH and AMOS HERSH, of Lancaster county, Pa.—*Improvement in Machine for cutting and crushing Corn-Stalks.*—Patent dated March 9, 1858.—The nature of this invention will be understood by reference to the engravings and claim.



The inventors say : We *claim*, first, the peculiar shape of the knives I located at the top of cylinder, and attached to the arms of the shaft for the purpose of cutting off the ends of corn stalks by a circular sweep and an angular downward cut at the same operation, as described.

Second, We claim the combination of the knives as curved to correspond with the cylinder at the top, and its spiral set teeth G at the sides for the purpose of cutting and crushing the corn stalk at one operation most effectually and in the simplest manner, as described.

No. 19,311.—ELIAS PECK, of Canton, Illinois.—*Improvement in Machines for Cutting Brush from Cotton Fields*.—Patent dated February 9, 1858.—The letters *a* are the journals, *b* the knives, E the cams, F the bars to cut against, and *g* is the place where the axle of the cutting wheel passes through the inside piece of timber in *fig. 1*. The cams, marked E, should be made of iron, three-eighths of an inch in thickness and two inches in width. The under edge should be made sharp where they come near to or bear upon the ground, so as to cut or break the brush upon the ground. They are also to raise the wheels or knives over stones or other obstructions.

*Claim*.—I claim the arrangement of wheels S, knives *b*, cams E, and bar F, the whole being arranged and operated in the manner and for the purpose set forth.

No. 21,667.—C. A. GAINES, of Watson, Mississippi.—*Improvement in Cotton Scrapers*.—Patent dated October 5, 1858.—This invention consists in the peculiar shape and arrangement of the bottom E of the block. The side and rear edges *c d* and *f* only are in a plane composing the surface which rests on the ground. From these edges, inward and forward, to the edge *g* next to the mould-board, the bottom is made hollow or concave, the depth of said cavity increasing as it approaches the front edge *g*, and the greatest depth being in the middle thereof.

*Claim*.—Giving a hollow or concave form to the bottom E of the block, from the rear and side edges inward and forward to the mould-board or scraper D, substantially in the manner and for the purpose specified.

No. 19,151.—DAVID PERHAM, of Tyngsborough, Massachusetts.—*Improvement in Cranberry Separators*.—Patent dated January 19, 1858.—The nature and object of this invention will be understood by an examination of the claim and engravings.

The inventor says : I *claim* the inclined plane J and bounder L and L<sup>2</sup>, constructed and relatively arranged and operated as described, for bounding cranberries, to separate the good from the bad, essentially as fully set forth.

I also claim the relative arrangement of the hopper B, with its adjustable gate H and rack C, in such manner as to properly deliver the cranberries to the apron D, and allow dirt and foreign matter to fall from them through this rack during their delivery, essentially in the manner and for the purposes fully set forth.

I also claim the arrangement of the guides I and P<sup>5</sup>, constructed



with and forming part of the feed apron D, as described, so that the cranberries will not be allowed to fall on each other when delivered to the bounder, essentially in the manner and for the purposes fully set forth.

I also claim the movable and adjustable flexible strick G, so placed above and relatively arranged with the apron D as to govern the quantity of cranberries on the apron itself which may be passing over or upon it, especially in the manner and for the purposes fully set forth.

I also claim the cushion T, relatively arranged with the bounder L and L<sup>2</sup>, as to receive momentarily, and prevent bruising the imperfect cranberries, essentially in the manner and for the purposes fully set forth.

I also claim the flap F<sup>2</sup>, so arranged with the bounder L and L<sup>2</sup> as to receive the force of the good or perfect cranberries, and prevent bruising them as they are separated by and bounded from the bounder, essentially in the manner and for the purposes fully set forth.

I also claim the double adjustable divider Y and Z, so arranged relatively with the bounder V and M<sup>2</sup> as to subdivide the poorer quality of cranberries, essentially in the manner and for the purposes fully set forth.

No. 19,248.—JAMES HOUCK, of Clinton, Indiana.—*Improvement in Cultivators*.—Patent dated February 2, 1858.—The nature of this invention will be understood from the claim and illustrations.

The inventor says: I do not claim the use of shovels or the mould-board, as they have been long used.

But I *claim* the arrangement of the triangular mould-board C and its adjustable standard B<sup>4</sup>, with relation to beam A, standards B B<sup>2</sup> B<sup>3</sup>, handles H H, and shovel S S, in the manner and for the purpose set forth.

No. 19,584.—D. P. ROGERS, SEYMOUR ROGERS, and LUMAN ROGERS, of Pittsburg, Pa.—*Improvement in Cultivators*.—Patent dated March 9, 1858.—The gauge-irons *jj*, which are for the purpose of expanding and contracting the cultivator, are made in the usual way, with the exception that one end of each is flattened and widened out; the widened part is turned down to form a groove X, so that in bringing them together the groove of one "iron" will receive the body of the other. The clamp-spring is for the purpose of clamping the gauge-irons; the lower end of one of the braces *h* is bent so as to stand perpendicular, and then a portion of this part is bent so as to form a figure similar to the letter U; a bolt is inserted in the upper part of this figure so as to draw them together.

*Claim*.—The combination of teeth, braces, standards, spring-clamp and gauge-irons with the frame of a cultivator, the whole being constructed and arranged in the manner and for the purposes set forth.

No. 19,742.—JOSEPH BANKS, of Dadeville, Ala.—*Improvement in Cultivators*.—Patent dated March 30, 1858.—A set of mortises *ppp* is made vertically through the beams A B B, at regular distances, for



the reception of bolts *c c c*, which secure the teeth *F G H* and their braces *S S* to the under sides of the beams. Teeth *F G* are employed both to work the earth and receive the several scrapers *I L L*. They are attached to and arranged so as to be shifted to different positions beneath the under sides of the side beams *B B*, and each has a rear brace *S* bolted to the beam at the top, while the lower end thereof is pointed, and enters a shallow hole or notch *d* in the back of the tooth.

*Claim.*—The construction, arrangement, and combination of the body of the implement and its movable teeth, as described, whereby it is readily adapted to properly receive in turn the several scrapers employed for performing the various modes of cultivation specified.

No. 20,207.—L. W. KELLEY, of Brunswick, Ohio.—*Improvement in Cultivators*.—Patent dated May 11, 1858.—The purpose of this implement is to make it convertible into three different kinds of cultivators. First, a scraping and tooth cultivator combined: the scrapers are adjustable separately from the adjustment of the teeth, or *vice versa*; by extending outward or contracting inward the adjusting bars *G G*, the side beams and their teeth *I I* are adjusted outward or inward. Second, a simple scraping cultivator, by withdrawing the two bolts *a d'* by which the side beams *B B* with their adjuncts are removed, and taking out the tooth *H* from the central beam. Third, a simple tooth cultivator, by removing the bolt *f* and wedge *h* and pin *i*, (if both are used,) and thereby detaching the scrapers *M M* and their appendages from the central beam.

*Claim.*—The combination and arrangement of the teeth beams *B B* with their attaching and adjusting bars *E E* and *G G* and the scrapers *M M* with their attaching and adjusting bars *L* and *G<sup>1</sup> G<sup>1</sup>*, with each other, and with the central beam *A*, substantially in the manner and for the purposes set forth.

No. 20,260.—JOHN ENDSLEY and ELIHU FLETCHER, of Abington, Ind.—*Improvement in Cultivators*.—Patent dated May 18, 1858.—The shanks *D E F* are situated respectively to each other, one before another, *D* being in the lead; they “hill” the earth to the right. *G G<sup>1</sup> G<sup>2</sup>* are three shovels; they are bolted to shanks *D E F*. *H* is a gauge of iron fastened to shank *E*. *I I* are two saddles, each with two sets of flanges upon opposite sides. One set embraces the beam *A*, and the other clasps the upper end of a shank *D* or *F*.

The inventors say: We do not claim a bed with inclined sides following the trace of the coulter, rendering the sides of the furrows compact, and preventing the falling in of the earth, as described in Charles K. Farr’s patent of May 9, 1854. Neither do we broadly claim the saddle *I*, as we propose making that the subject of a separate application.

But we *claim* the arrangement of shanks *D E F* and shovels *G G<sup>1</sup> G<sup>2</sup>* with saddle *I I* and beam *A*, when constructed in the manner and for the purposes shown.

No. 20,712.—WILLIAM A. HOPKINS, of Vicksburgh, Miss.—*Improvement in Cultivators*.—Patent dated June 29, 1858.—The opera-



tion of this transverse plough is that the first plough throws its furrow to the plant, the second throws its furrow to that of the first, and the third to that of the second, and the fourth to that of the third, making a bed of four furrows; this plough doing the work of four single ploughs in proper order.

*Claim.*—The arrangement of the beam A, transverse beam B, handles C, bolts D, shares E, standards F, and stays G, when the several parts are constructed and united as described, and not otherwise.

No. 20,798.—DUNCAN C. HUBBARD, of Okolona, Miss.—*Improvement in Cultivators.*—Patent dated July 6, 1858.—The nature of this invention consists in adjusting or fitting the share T E S F to the long stock A B C D, after the manner of the common plane-bit to its stock. The slits  $m\ n\ m^1\ n^1$ , through which the bolts  $a\ b\ a^1\ b^1$  pass, will allow the share to be set any required depth. The small harrow tooth  $h\ z$  will stir up the soil pressed down by the stock.

*Claim.*—The combination of share T E S F, stock A B C D, and tooth  $h\ z$ , the whole being constructed and arranged substantially as and for the purposes set forth.

No. 21,055.—WILLIAM ADAMS, of Detroit, Michigan.—*Improvement in Cultivators.*—Patent dated August 3, 1858.—This machine is intended for garden weeding and cultivation by hand, and should be of a size corresponding to the width of the rows in which the crop is planted. The manner in which the parts of the machine are arranged, enables it to pass centrally over the rows of plants; and a space is left between the two front teeth, wide enough to leave the plants undisturbed. The machine should be wide enough to cut all the weeds to the middle of the space between the rows.

*Claim.*—The arrangement of the loop G at the juncture of the cross and side bars A and C, in combination with the binding pin, and the double looped yoke extending transversely from one side bar to the other, for holding the handles E, in the manner and for the purposes specified.

No. 21,128.—N. W. FRASER and A. J. McLELLAN, of Laporte, Ind.—*Improvement in Cultivators.*—Patent dated August 10, 1858.—The nature of this invention consists in the manner of arranging the shield, together with the shovels and the two revolving wheels.

*Claim.*—The arrangement of the fender D attached to the shovel standards  $D^1$ , the shovels E, and the wheels A on the vertical shafts  $a$ , the whole being arranged for joint operation as set forth and described.

No. 21,170.—ROBERT SAWYER, of Wales, Me., assignor to WILLIAM G. BROWN, of Monmouth, Me.—*Improvement in Cultivators.*—Patent dated August 10, 1858.—This machine is calculated to weed and hill at the same time. Should it be desired to weed the ground for a while without hilling it, the turning shares may be removed from the cutters, they being restored to place preparatory to performance of the hilling operation.



The inventor says: I do not claim the common cultivator, as made with one or more series of small double ploughshares applied to adjustable bars or supports connected with a plough.

But I *claim* my improved weeding and hilling plough, constructed substantially as described, viz: with a coulter B, a root cutter D, adjustable cutters G G, and turning shares L L applied to adjustable handles and a plough beam, and made to operate substantially as specified.

No. 21,377.—NATHANIEL S. SMITH, of Buffalo, N. Y.—*Improvement in Cultivators*.—Patent dated August 31, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the flanged or broad cutting cylinder B, nor placing a gang of hoes behind such a cylinder, nor the combination of the comb-formed clearer with such a cylinder.

What I *claim* is the use of the double joint piece D to connect the gang of hoes to the axle, when said joint piece extends beyond the axle, and subserves also the purpose of a foot lever to throw the hoes out of the ground, in the manner and for the purpose set forth.

No. 21,428.—ISRAEL LONG, of Terre Haute, Ind.—*Improvement in Cultivators*.—Patent dated September 7, 1858.—The nature of this invention consists in the employment of two frames, which are furnished with harrow teeth at their forward end, and cultivator teeth at their rear ends, and connected by arch braces, in combination with the propelling wheels, arranged on short crank axles; the tongue arranged on top of the arch braces, and with the adjusting arrangements.

*Claim*.—The employment of two frames A A, which are furnished with harrow teeth c at their forward end, and cultivator teeth B at their rear ends, and connected by arch braces D D, in combination with the propelling wheels E, arranged on short crank axles c; the tongue G arranged on top of the arch braces, and with the adjusting arrangements substantially as and for the purposes set forth.

No. 21,625.—THOMAS WILLIAM POOLE, of Brunswick, Ohio.—*Improvement in Cultivators*.—Patent dated September 28, 1858.—The nature of this invention consists in constructing the cultivator with adjustable arms or wings, in combination with fixed guards, secured above, and concentric therewith; so that the teeth may be expanded or contracted according to the convenience of the operator, and at the same time superior strength and firmness, as well as lightness of construction, are secured.

*Claim*.—The combination and arrangement of the hinged arms B B B, and fixed concentric guards D D D, in the manner specified.

No. 21,690.—B. S. MORGAN, of Delhi, Iowa.—*Improvement in Cultivators*.—Patent dated October 5, 1858.—This invention consists in a peculiar arrangement of levers and share stocks, whereby the shares may be raised above obstructions with much ease, and also allowed to yield or give to obstructions, in case they are brought in contact with them, so that the parts cannot be injured thereby.



The inventor says: I *claim* the arrangement of the bars E, with share stocks F attached; the levers I, with links J fitted in the triangular shaped openings *f* in said levers, and attached to the colter bars K, which are connected to the levers N, substantially as and for the purpose set forth.

I claim in combination with the above, the brace rods H attached to the share stocks F, by means of springs *a*, and fitted in the recesses *b* in the stocks, and arranged substantially as and for the purpose set forth.

No. 21,739.—C. H. CARRINGTON and S. E. CARRINGTON, of Weymouth, Ohio.—*Improvement in Cultivators*.—Patent dated October 12, 1858.—A is a central oblong frame, to which a tongue B is attached. The machine being intended to stride the rows or drills, the central part thereof is entirely, and the cross pieces of the frame curve, or bow upward, as shown at *a a*, thus allowing corn or other vegetable growing at a considerable height to be passed over without injuring or disturbing it. This frame is supported by two wheels D D inside of its side beams, and not very far from each other. They are mounted on separate axles, not crossing the space between each other, so as not to obstruct the central part of the implement. A seat C is mounted above, and upon the frame for the reception of the driver.

The inventors say: We *claim* the arrangement and combination of the side wings E E and bars H H with each other, and in relation to the frame A, substantially in the manner and for the purpose specified.

We also claim the mode of actuating and adjusting the hoes K K, by means of the wheels D D, stirrups *h h*, bar L, lever M, and catch plate N, arranged in combination, and acting upon the handles J J of the hoes, substantially as set forth.

No. 21,787.—WILLIAM TUCKER, of Blackstone, Mass.—*Improvement in Cultivators*.—Patent dated October 12, 1858.—The nature of this invention consists in the combination of a rotary toothed drum, or a rotary series of teeth, with a series of gird bars, and teeth projecting from such bars, the whole being arranged, applied to a frame, and constituting a new or improved cultivator to be used in breaking up the soil preparatory to its being planted.

*Claim*.—The combination of the rotary toothed drum, of rotary series of teeth *a a*, with a set of stationary gird bars *d d*, and teeth E E projecting therefrom, the whole being arranged, applied to a frame A, and constituting a new or improved cultivator or agricultural implement, to operate substantially in the manner and for the purpose or purposes as specified.

No. 21,763.—THOMAS M. LEE, of Broad Ford, Va.—*Improvement in Cultivators*.—Patent dated October 12, 1858.—This invention consists in the manner in which is combined and arranged the adjustable rotating digging wheel with the adjustable digging teeth and cleavers, so that the wheel may be adjusted to the proper depth to be ploughed



or harrowed, and the teeth and cleavers be changed to suit such depth, as will be explained.

*Claim.*—So combining the cylinder R, stock H, and block o, with their respective teeth *a d g*, with each other, and with the main frame A, as that can individually or severally be adjusted for deeper or shallower work, substantially as and for the purpose set forth.

No. 21,857.—THOMAS S. STEVENS, of Pepperell, Mass.—*Improvement in Cultivators.*—Patent dated October 19, 1858.—Underneath the carriage A is a movable cutter frame F, which carries at its front a series of vertical stripping cutters *a a a*, arranged therein as seen in the engravings. Besides such cutters, the frame F supports a rotary shaft or drum G, carrying on its outer surface a set of spiral or other proper knives *b b*, so arranged as not to cut horizontally underneath the surface of the land, in directions transverse of the machine, when the drum or shaft is put in rotation, but to cut in circular paths concentric with the drum.

*Claim.*—The inventor says: I am aware that for cutting sods and roots a series of stationary surface cutters, like under surface ploughs, have been used in connexion with a set of vertical scoring knives, and on one frame therewith; consequently, I do not claim such. Each of the knives of the rotary drum is a spiral or helical knife, or so formed as to cut in a curved instead of a horizontal path, and it passes into and out of the soil during each rotation of the drum. Therefore, its action on the soil is different from that of a stationary horizontal knife or ploughshare, which works in a horizontal path only under the surface, and, in connexion with the vertical cutters, separates the soil into ribbands or strips. The rotary cutters of my machine not only perform the functions of the stationary plough cutters, but they break or cut the soil in curved paths, so as to reduce the strips to pieces, and they raise these pieces and turn them over more or less, whereby the roots will also be separated and thrown out of place.

What I *claim* is the combination of a set of vertical stripping cutters *a a*, and a set or series of revolving under-surface cutters *b b*, applied to operate together, substantially as specified.

No. 22,215.—WILLIAM WILLMOT, of Wilmington, Delaware.—*Improvement in Cultivators.*—Patent dated November 30, 1858.—In operating this machine as it is drawn along, the shares N are made to penetrate the earth and form furrows of the requisite depth by means of the weights I, which are adjusted on the bars H at a greater or less distance from their outer ends to effect the desired result. The handles B B are grasped by the operator or attendant, and in case the shares are not designed to operate, they are kept in an elevated state by hooking the chains J sufficiently high on the pins *f*. The shares N are placed nearer together or further apart by adjusting the bars G<sup>1</sup> in the frame A. The chain P is so adjusted that it will, by dragging into the last furrow made at the previous "round" or "bout," insure the furrows being made at equal distances apart, and by turning the bar O, so that it will project over or beyond the opposite side of the



machine, the chain is allowed to perform the same office at the succeeding bout.

*Claim.*—The arrangement and combination of the bars G G<sup>1</sup> G<sup>2</sup>, bars H, adjustable weights I, chains J, bars L, and handles B, as and for the purposes shown and described.

No. 22,316.—THOMAS TURNER, of Marysville, Ohio.—*Improvement in Cultivators.*—Patent dated December 14, 1858.—This invention consists in the employment of two mould-boards placed one in advance of the other and attached to separate beams, connected together so as to be capable of adjustment, the front mould-board being hollowed out so as to allow the earth raised by it to pass over its share into the furrow, and directly in front of the other mould-board, which casts it up, in a pulverized state, towards the crop under cultivation.

*Claim.*—The combination of the pulverizing mould-board F and hilling mould-board G, constructed as shown, and attached respectively to the longitudinally and laterally adjustable beams A B, the whole being arranged substantially as and for the purpose set forth.

No. 22,437.—HOWARD MANN, of East Attleborough, Mass.—*Improvement in Cultivators.*—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: 1st. I *claim* the application of each wheel arbor to its wheel and the frame A, substantially as described, viz: So that the wheel may turn on the arbor and the latter extend into slots, and have fastenings, as explained, whereby not only the wheel may be adjustable with reference to the cutters, but the arbor and its screw nuts may be employed to strengthen the frame, in the manner set forth.

2d. I also claim the described arrangement of each of the slots of the wheel arbor with respect to the scraper of the periphery of the wheel, whereby the wheel, at whatever attitude it may be placed while its arbor is in the slots, will be at one uniform or proper scraping distance from the scraper.

3d. I also claim the application or arrangement of the slide bar of the cutter G, so as to operate not only as a scraper to the wheel but as a supporter of the cutter post or rod.

No. 20,823.—ASBERRY SMITH, of Ashville, Ala.—*Improvement in Cotton Cultivators.*—Patent dated July 6, 1858.—A is the upright or support, B the blade or share, C an iron brace, D the beam or main timber of the frame, E the handles, and F the post.

The nature of this invention relates to the peculiar form and construction of the blade, and the position thereof with regard to its upright support.

*Claim.*—The arrangement of the upright A, brace C, beam D, and support F, so that a plane will pass through or near the whole of them, and when the wing B is connected to and projects from the said upright A, all as set forth.



No. 20,605.—ERASTUS T. BUSSELL, of Shelbyville, Ind., assignor to WOMBAUGH, BROTHERS & Co., of Cincinnati, Ohio.—*Improvement in Rotary Cultivators*.—Patent dated June 15, 1858.—The nature of this invention consists in providing a hollow revolving drum, out of the surface of which projects any desired number of spiral twisted or otherwise shaped cutters *fff*, arranged at suitable distances from each other, to each of which a rotary motion is communicated as said hollow drum revolve upon its axis, by means of fixed cogged master wheel within the drum, into which small cog wheels play as they are carried around by the drum.

The inventor says : In making these ploughs for the various purposes for which they will be used, as well as their adaptation to the varied soils in the country, many modifications will be necessary. It will be distinctly understood, therefore, that I do not confine myself to any particular style, so long as I maintain substantially the features set forth.

What I *claim* is the arrangement of machinery substantially as set forth for breaking up and disintegrating the earth for purposes of agriculture.

No. 19,234.—MOSES BUCKLIN, of Grafton, N. H.—*Improvement in Cultivator Teeth*.—Patent dated February 2, 1858.—The nature of the improvement will be understood from the claim and engravings.

The inventor says : I do not claim a seed-delivering tooth such as is described in George W. Brown's patent of August 2, 1853.

Neither do I claim a seed-delivering tooth such as is described in L. W. Calver's patent of May 22, 1855.

But I *claim* a cultivator tooth having two shares, which rise with a curve, so as to form semi-mould-boards, with their front edges terminating in a single perpendicular plane or cutter, and in combination with said plane or cutter, extending forward with a straight cutting edge rising from the points of the shares at an angle of about  $32^{\circ}$ , and terminating at the top in a flange on each side, connected with the tops of the semi-mould-boards, for the purpose of fastening the tooth to the frame of the cultivator.

No. 21,212.—ADAM PRITZ, of Dayton, Ohio.—*Improvement in Grain Drills*.—Patent dated August 17, 1858.—The claim and engraving explain the nature of this invention.

The inventor says : I *claim*, first. The employment of a distributing slide E, which has two sets of different characters of discharge passages E F, and a connecting rod H, having two adjusting notches *ff*, in combination with a set screw *i*, which has a serrated sliding cap *k*, and with a slotted actuating lever G, which has a serrated rib *m* on its upper side, substantially as and for the purposes set forth.

Second. In combination with the above, the employment of short flanged metal tubes K for securing the flanged gum or leather conducting tubes *d* to the drill frame, substantially as and for the purposes set forth.



No. 21,736.—SAMUEL BINKLEY, of Dublin, Indiana.—*Improvement in Grain Drills*.—Patent dated October 12, 1858.—A represents the hopper, having common apertures  $a$  in its bottom; B is the slide, perforated to correspond with the apertures in the bottom of the hopper; each aperture in the slide is bisected by a thin bar  $b$ , the bottom of which is on a level with the lower surface of the slide;  $c c$  are a number of spurs extending upward from the bar  $b$  to a level with the top of the slide;  $d d$  are angular protuberances from the slides of the slide apertures; E is the staple which confines the slide to the bottom of the hopper; this staple is provided with grooves  $e$ , which leave intervals between the slide and staple, immediately beneath the spaces between the protuberances  $d$  on the former, whereas said protuberances themselves are in close contact with the staple.

*Claim*.—The slide B, in the described combination, with the grooved or corrugated staple E, for the purposes set forth.

No. 19,633.—ROBERT HAMILTON, of Franklin, Ind.—*Improvement in Seed Drills*.—Patent dated March 16, 1858.—The seed is placed in the chamber C on top of the circular bottom I. The machine being set in motion, the lever D being operated upon by the cam  $c$  on the axle, in turn operates the bar H, in the seed chamber, and causes it to have a quick, vibrating, lateral motion. The screws or stirrers J operating in the slots in the bottom I, work the seed down through these slots and on each side of the bar H; it thus works under the bar H and out at the apertures in the bottom of the seed box, into the discharge spout, and thence to the ground.

*Claim*.—The peculiar arrangement of the circular bottom I, as prepared, with the vibrating bar H, pins J, sides F F, lever D, slide E, and cam  $c$ , all operated and constructed in the manner set forth and for the purpose described.

No. 19,617.—C. B. BROWN, of Alton, Illinois.—*Improvement in Seed Drills*.—Patent dated March 16, 1858.—The nature of this invention consists in the employment of vertical, vibrating, serrated blades G, in combination with the slitted, flanged, or serrated drill-teeth F, for the purpose of cutting up and removing any weeds, grass, or stubble that may collect about and hang on the front of the drill-teeth while planting in foul ground.

The inventor says: I *claim*, first, the employment of vertical, vibrating, serrated blades G, in combination with the slitted flange or serrated drill-teeth F, substantially as and for the purposes set forth.

Second. The combination of the seed-distributor O, and clearing-blades G, and propelling axle C, by means of a double-acting rock-shaft I, three connecting rods H J  $j$ , two elbow levers  $c i$ , a crank shaft K, and transverse slide P, and two spur wheels L M, substantially as and for the purposes set forth.



No. 19,808.—GEORGE S. BALL, of Dayton, Ohio, assignor to BENJAMIN KUHNS, of said Dayton.—*Improvement in Seed Drills*.—Patent dated March 30, 1858.—A is the slide, B the openings, C the clips on slide A, which are riveted or soldered on the slide. The slide A occupies a place between two other slides with corresponding openings. The clips C pass into the openings of the upper slide and present an uneven surface in the seed hopper of the drill, the lower being the shut-off slide, to stop the flow of seed from the hopper. The quantity of seed to be distributed is regulated by the screw *d* attached to the slide A.

The inventor says: I do not claim the upper or lower slide, such having been used before; but I *claim* the slide A with the attachment of the clips C, in combination with the slides D and E, the whole being arranged and operated in the manner and for the purposes set forth.

No. 19,924.—JOHN HARRIS, of Shippensburg, Pennsylvania.—*Improvement in Seed Drills*.—Patent dated April 13, 1858 —This invention consists of a spring attachment for drill teeth, and by it provision is made for the drill teeth yielding when they come in contact with stumps and stones, and thus be saved from being broken, and then, after passing the obstruction, of springing forward to its original position.

*Claim*.—Having the spring bar, which is attached fast to the upper part of the main relief connecting bar B of the drill tooth A by one end, loosely connected at its other end to the upper end of the drill tooth by means of a curved hook on the tooth and a slot in itself, substantially as and for the purposes set forth.

No. 20,377.—JOHN C. STEVENS, of Lee, Massachusetts.—*Improvement in Seed Drills*.—Patent dated May 25, 1858.—The claim and engraving explains the nature of this invention.

The inventor says: I do not claim, broadly, the perforated and reciprocating seed slides *h*, for they have been used in various machines. But I *claim* connecting the bars or beams H to the frame of the machine by means of joints I J, arranged as shown, to prevent the front and converging ends of the boxes from coming in contact with each other when raised, and using in connexion with the bars or beams, thus hinged, a distributing mechanism, arranged substantially as shown, so that the distributing device will be thrown out of gear with the wheels G, simultaneously with the elevating of the bars or beams H, and consequently the teeth N.

No. 20,603.—M. C. YOUNGLOVE, of Cleveland, Ohio.—*Improvement in Seed Drills*.—Patent dated June 15, 1858.—The seed cylinders I are each divided into two sections, I<sup>1</sup> and I<sup>11</sup>; the section I<sup>1</sup> has an interior opening or space to avoid weight of metal in the machine; the section I<sup>11</sup> has also an interior space, surrounded by fingers or projections S, with intervening spaces. On account of the sleeve journal *a*, which



is connected with the screw *c* and the axle *H*, it is impossible for the capacity of the seed cups to be changed by the resistance of the seed or other obstruction passing from the hopper to the seed cups.

*Claim.*—The connected series of compound pocketed seed cylinders *I*, in combination with the sliding sleeve journal *a*, and the adjusting screw *c*, the whole being arranged and operated substantially as set forth.

No. 20,946.—J. W. KIRK, of Rising Sun, Maryland.—*Improvement in Seed Drills.*—Patent dated July 20, 1858.—By the peculiar arrangement of duplicate discharge passages in the bottom of the hopper *A*, and in the distributing slide *C*, the grain is pushed in different directions. One stream does not interfere with the other, and is not liable to choke. The stream is more steady and constant, and the grain consequently is not so much bunched when deposited into the soil.

*Claim.*—A seed hopper which has at each point of discharge two passages arranged alongside, and one a little advance of the other, and both used at the same time, in combination with a seed slide which has two passages similarly arranged, and of equal depth with each other, substantially as and for the purposes set forth.

No. 21,316.—O. H. S. BRUMFIELD, of Centreville, Indiana.—*Improvement in Seed Drills.*—Patent dated August 31, 1858.—This invention consists in having a series of hooks or curved teeth attached to a rod, the ends of which are fitted in horizontal guides and connected to pitmans, which are attached to cranks, the parts being arranged so that the surface of the ground in front of the drill teeth will, as the machine is drawn along, have all obstructions removed, and the drill teeth thereby prevented from becoming choked or clogged.

*Claim.*—The teeth *a*, attached to the rod *G*, and placed between the drill teeth *I*, when said rod is operated by the pitman *F* and cranks *E*, so that the teeth *a* will have the reciprocating and rising and falling movement communicated to them as and for the purpose set forth.

No. 21,642.—ALEXANDER TURNER, of Franklin, Ind., assignor to Himself and REDDEN BESS & H. SLOANE, of same place.—*Improvement in Seed Drills.*—Patent dated September 28, 1858.—In the engravings *A A*<sup>1</sup> and *B B*<sup>1</sup> represent four seed bales. These boxes are secured to a V-shaped frame, marked *E E*; the two parts of this frame are secured together at one end by means of a pin or pivot; cross bars *F F* are secured to them at the other end; a piece *G* covers these bars, and they are secured to it by means of bolts *s s*. Bars *F F*<sup>1</sup> are slotted and bolts *S S* pass through these slots, and the bars are adjustable by means of them. The pieces of the frame *E* may thus be expanded at one end so that the machine will cover more ground and at the same time increase the distance between the drill rows.

*Claim.*—The arrangement of the seed boxes *A A* and *B B*, the driving wheel *C*, secured as described, and the lever *a*, wheels *c* and *d*, rod *e*, and seed slides *f f*<sup>1</sup> and *g g*; the whole being constructed and operated in the manner and for the purpose described.



No. 21,715.—W. IRWIN WILLITTS, of Milton, Ind.—*Improvement in Seed Drills*.—Patent dated October 5, 1858.—The nature of this invention consists in the combination and arrangement of seeding drill plows and corrugated rollers, making the frame to which the receding drill plows are attached adjustable, so that the grain may be buried at any required depth in the ground, by arranging the drill plows to work parallel, either with the ridges or depressions of the corrugated roller.

*Claim*.—The arrangement and combination of the corrugated roller A, the adjustable frame *z, t, e*, receding drill plows *t*, the supporting chains *c c*, and the hooks *h h*, all arranged and operating substantially as described for the purposes set forth.

No. 21,018.—EDWARD O. BRYDEN, of Lafayette, Ind.—*Improvement in Wheat Drills*.—Patent dated July 27, 1858.—The cutters H, as the machine passes along, cut the stalks and other things in the way of the teeth G, and prevent them from lodging and clogging the machine. Anything that may not be cut will be passed over by the rollers or cutters. The machine is expanded or contracted by operating the lever rod I and lever J, which forces the bars C C by means of pitmans V V.

*Claim*.—The combination and arrangement of the cutters H H H H, and teeth G G G G, with the concentric halder holders D D D D, and levers E E E E, and the combination and arrangement of the slides Q Q and *u u*, and the levers P P, with the pitmans O O, and cranks *n n*, when constructed and operated as set forth.

No. 19,663.—JOHN VAN DOREN, of Farm Ridge, Ill., assignor to Himself and B. MURRAY, of Ottawa, Ill.—*Improvement in Dumping Boxes for Agricultural Purposes*.—Patent dated March 16, 1858.—B D E G and B<sup>1</sup> D<sup>1</sup> E<sup>1</sup> G<sup>1</sup> are two pyramidal boxes, consisting of two sides, a bottom, and an end or part of an end, revolving horizontally on pivots A<sup>1</sup>, and vertically on hinges C. N N are blocks, supporting boxes which also revolve on pivots A<sup>1</sup> horizontally. The blocks are supported by platform M, which revolves horizontally upon a spindle through the medium of suitable driving gear.

The inventor says: I wish it to be understood that I do not confine myself to the form thereof, nor to the precise manner of operating the same.

But I *claim* the right of varying their form and operation, in any manner substantially the same within the limits of the nature of the invention.

I claim the combination of the dumping boxes, constructed as described, with the blocks N, and platform M, for the purposes set forth.

No. 22,076.—ALBERT GOODYEAR, 2d, of Hamden, Conn.—*Improvement in Automatic Feed Boxes for Animals*.—Patent dated November 16, 1858.—The nature of this invention consists in attaching to, or combining with, a feeding trough or box such an arrangement of mechanical devices as will automatically open the said box by raising



the lid thereof, at such an hour or point of time as may be previously arranged or required.

*Claim.*—The arrangement of the box B, lid L, spring *l*, and catch *a*, with sliding plate K, dial D, notch *n*, and button E, united together substantially in the manner and for the purpose set forth.

No. 10,457.—HARTWICK VON UNWERTH, of Salem, Mass.—*Improvement in Garden Tools.*—Patent dated February 23, 1858.—In the engravings A is the weeder, and made of steel, malleable iron, or any suitable material. It is fastened to the handle B by means of screws or rivets 1, 2, 3. The inner edge of the weeder is made sharp, so as to cut all the way round to within a few inches of the handle. C is the trowel, being made in the same piece with the weeder A. B is the handle, ten or twelve inches long, and made of wood; *b* is a continuation of the handle bent or shaped, and forming the dibble.

*Claim.*—The combination of the weeder, trowel, and dibble, substantially as described and for the objects specified.

No. 21,700.—SIDNEY S. ROCKWELL, of Vermontville, Mich.—*Improvement in Machines for Cutting Root Grafts.*—Patent dated October 5, 1858.—To use this machine the operator places it before him, takes his seat, places his foot upon the treadle H; the root or scion to be cut is placed in the groove in the table directly under the blades; then a motion of the foot downward brings down the gate, and the root or scion is cut in the manner required for grafting. Then by removing the foot from the treadle H, the spiral spring *a* brings up the gate to its former position.

*Claim.*—The arrangement of the shanks L L, and blades *a a*, and movable blades *x x*, in the manner specified and for the purposes set forth.

No. 20,196.—JOHN DE RUSH, of St. Mary's, Ohio.—*Improvement in Grain Cleaning Machines.*—Patent dated May 11, 1858.—This invention consists in the use of a beater and screen, constructed and arranged relatively with suction spouts A<sup>1</sup> L I M H, and a fan F, whereby a machine exceedingly simple in its construction is obtained, and one that will separate smut, dirt, and all foreign substances from the grain.

*Claim.*—The scouring plates *e f*, fan F, and suction spouts A<sup>1</sup> L I M H, when combined and arranged relatively with each other, substantially as and for the purpose set forth.

No. 20,425.—MARQUIS L. HALL, of Bridgeport, Conn.—*Improvement in Grain Cleaning Machines.*—Patent dated June 1, 1858.—H H represents the arrangement for scouring the grain. It is composed of flat steel strips or blades passing through an opening or slot I, in the spindle F, at a suitable distance apart, and are so kept by placing plates of metal between them. They are all secured by placing a key or wedge over the top of them in the slot.

*Claim.*—The arrangement of a series of flat steel springs or blades, placed horizontally and parallel with each other, and secured by a



wedge or key in a slot or opening in the spindle, constructed and operating in the manner and for the purpose described.

No. 20,899.—N. H. SHERBURNE, of Campton, Ill.—*Improvement in Grain Cleaning Machines*.—Patent dated July 13, 1858.—The nature of this invention consists in constructing the machine with concentric fan chambers F F<sup>1</sup>, containing fans driven in opposite directions, so as to produce two separate and distinct currents, the object being to effect the separation of oats and wheat previous to cleaning the wheat; this construction of fanning apparatus being used in connexion with a corrugation of the upper screen L.

*Claim*.—The concentric and opposite moving fans G G, constructed, arranged, and operating substantially as described, in combination with the corrugated head of the upper screen L, the whole operating as specified.

No. 21,662.—W. T. FISHER, of Cleveland, Tenn.—*Improved Grain Cleaning Machine*.—Patent dated October 5, 1858.—This invention consists in the use of an oscillating blast spout and screws, a scouring device, stationary blast spouts, and a fan, whereby grain may be perfectly scoured, or cleaned and separated from all impurities.

*Claim*.—The oscillating blast and screen spout J, scourer G, blast spouts E F, and fan C, combined and arranged relatively with each other, substantially as and for the purpose set forth.

No. 19,643.—JOHN LEIDY, of Lamar, Pa.—*Improvement in Grain Cradles*.—Patent dated March 16, 1858.—In the drawings A is a movable metallic plate, to which the fingers of the cradle are united by means of rods B and screws C, the rods serving to brace and keep the fingers in position. D is a shank attached firmly to the plate A, and passing through a slot in the scythe snath is held firmly therein by means of a thumb screw E.

*Claim*.—The arrangement of plate A and its shank D with rods B and screws C, in the manner and for the purpose set forth.

No. 20,809.—JOHN P. MANY, of Rockford, Ill.—*Improved Mode of Securing Grain in Bundles or Sheaves*.—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The use of a short band A, cut in suitable lengths for separate bundles, placed in proper position by hand, and automatically passed around the bundle and fastened by the expansion of the bundle when released, substantially in the manner set forth.

No. 20,581.—WILLIAM PARTRIDGE AND GEORGE W. SHAW, of Elliott's Mills, Md.—*Improvement in Machines for Cleaning Grain*.—Patent dated June 15, 1858.—The grain on entering the machine falls upon the head H, and is thrown therefrom against the outer casing, and within range of the vertical beaters. The grain passes through the spike beaters G, in its transit to the bottom. When the grain enters the chamber C it encounters a blast of air, which passing



through it carries the impurities up to the blast trunk T, and discharges them from spout R.

The inventors say: We *claim* the combination of the spike-studded beaters G upon drum D, with the notched and grooved dress of the outer casing, constructed as described, the whole arranged and operating together substantially as and for the purposes set forth.

We also claim the combination of the pan W, chamber C, channels I, and blast trunk T, adjustable by means of the vertically moving spout R, attached to sliding breast piece *f*, arranged and operating substantially as set forth.

No. 20,923.—WILLIAM H. ORR, of Martin's Ferry, Ohio, assignor to WILLIAM M. GRIFFITHS & Co., of Martin's Ferry, aforesaid.—*Improvement in Machines for Cleaning Grain*.—Patent dated July 13, 1858.—The improvement in this machine consists in performing the labor heretofore done by an attendant by means of the auxiliary shaft K. The revolving shaft or roller K, furnished with any suitable number of straight or curved fingers on projections *o o o*, is placed immediately above the riddle N in the shoe G; said shaft or roller deriving its required motion from any convenient point and being placed at or near the tail of the shoe, or at such point in consequence of the blast from the fan failing to blow off the chaff and other foreign matter, the apertures in the riddle become choked, causing an accumulation of chaff &c., and preventing the grain from passing through the apertures in the riddle.

*Claim*.—The application of the auxiliary shaft K, constructed in the manner and employed for the purpose described and set forth.

No. 21,036.—B. T. TRIMMER, of Rochester, N. Y.—*Improvement in Machines for Cleaning Grain*.—Patent dated July 27, 1858.—The nature of this invention will be understood by an examination of the claim and engravings.

The inventor says: I *claim* giving the screens *a b d* an unequal, reversible, gyratory motion, for the purpose of neutralizing the centrifugal force of the grain, and retaining it in the centre thereof, in combination with the vertical vibratory motion, by means of the double reverse-acting cranks *n n*, cams *s*, and springs *m*, or their equivalents, arranged and operating substantially in the manner and for the purpose set forth.

I also claim the combination and arrangement of the blast generator B, triple blast tubes D, E, and F, and their valves *f h*, and movable diaphragm *s*, with the screen box J, and return spouts P and Q, operating conjointly for separating, screening, and returning the grain, and for increasing, diminishing, and modifying the blasts for the various purposes required, substantially in the manner set forth.

I further claim the adjustable deflector R, in combination with the screen box J, for returning the lighter grain through the screens, and re-subjecting it to the blasts or discharging it as refuse as described.

No. 19,140.—ASHMAN HALL, of Dansville, N. Y.—*Improvement in Grain Separators*.—Patent dated January 19, 1858.—This invention



consists in the employment of one of two shoes provided with screws, and arranged relatively with each other and a fan, so that the grain is conducted directly to the receptacle prepared to receive it, and is separated from foreign substances.

The inventor says: I do not claim any of the parts when separately considered.

Nor do I claim, broadly, the employment of two shoes in separating machines.

But I *claim* the relative arrangement of the two shoes D G, in respect to each other, and to the fan C, the upper shoe D, swinging laterally, and communicating a horizontal motion to the lower shoe G, by means of the lever H, and all the parts being arranged as set forth, for the purposes specified.

No. 19,899.—JOSIAH TURNER, of Sunapee, N. H., assignor to himself and EDMUND BURKE, of Newport, N. H.—*Improvement in Grain Separators*.—Patent dated April 6, 1858.—The nature of this invention consists in the application of an upward inclined revolving lattice straw-carrier, to change the motion of the straw and more thoroughly complete the separation of the grain from the straw and chaff, with which is combined a horizontal vibratory lattice, and a smaller adjustable lattice.

The inventor says: I do not claim the toothed cylinder A, or its accompanying toothed concave, nor do I claim any of the described devices separately.

But I do claim the upward inclined revolving straw-carrier S, in combination with the vibratory lattice S<sup>1</sup>, and the adjustable lattice S<sup>1</sup>, constructed and operating substantially in the manner as set forth and described.

No. 19,877.—FRANCIS SCHUNK, of York, Pa.—*Improvement in Grain Separators*.—Patent dated April 6, 1858.—A series of sieves or screens are employed, and a blast-fan arranged relatively with each other, whereby the grain is not only sieved or screened in a perfect manner, but in its passage from one sieve or screen to the other is presented in the most favorable manner to the action of the blast from the fan, so that all the light substances will be blown away.

The inventor says: I do not claim separately any of the parts shown and described, for said parts or their equivalents have been previously used, but I am not aware that the parts have been arranged as herein shown, so that the screens could be inclined more or less as desired, the screens subjected to a jarring shake motion, and the grain subjected to the action of the blast during the principal part of the time occupied in its passage through the machine.

I claim the screens E I J, placed in adjustable frames F H, operated by the cam I<sup>1</sup>, levers J<sup>1</sup> K<sup>1</sup>, and springs q t, arranged relatively with each other, and the fan C, spout or passage P, and boards G<sup>1</sup>, substantially as shown and described for the purpose set forth.

No. 20,522.—ANDREW J. VANDEGRIFT, of Lexington, Ky.—*Improvement in Grain Separators*.—Patent dated June 8, 1858.—The claim and engravings will explain the nature of this invention.



*Claim.*—The arrangement of the adjustable feeding tube I, and distributor O, within the wind trunk H, so that the grain may be fed in without allowing a draft or current of air to follow it, and so that the grain may be presented to the blast in thin sheets, and not have their gravitation affected by counter currents or eddies, or accelerated by falling upon each other, or sliding down from above, substantially in the manner and for the purpose set forth.

No. 20,735.—H. H. SEELEY and PHILANDER GRISWOLD, of Hudson, Mich.—*Improvement in Grain Separators.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We do not claim operating the shoe B by means of the eccentric F<sup>11</sup>, for this is a well known mechanical device, used for analogous purposes,

But we *claim* forming the fan box C of two parts, *c d*, and the fan D, made also in two parts, so as to have one portion of the fan for each compartment of the box, and having the slides F F attached to the box C, to regulate the admission of air into the opening *f*, between the parts *c d* of the fan box, the whole being arranged as and for the purpose specified.

No. 21,227.—L. WILCOX, of Hudson, Mich.—*Improvement in Grain Separators.*—Patent dated August 17, 1858.—The object of this invention is to augment the working capacity of a grain separator to a very considerable extent, by a novel arrangement of the screens, and operating said screens in a peculiar way; also by a novel feeding device placed in the hopper to agitate the grain and insure its proper presentation to the screens.

The inventor says: I *claim*, first, the reciprocating feeder bar G, provided with projections *k*, placed at the bottom of the hopper F, and attached to the shoe E, substantially as and for the purpose set forth.

Second. The two sets of screens *e f* placed within one and the same shoe E, and arranged relatively with each other and the hopper F, substantially as described to operate as set forth.

Third. Giving the screens *e f* a vibratory movement independent of the shake motion of the shoe E through the medium of the rods *m m*, screens H, and rod *o*, substantially as described for the purpose set forth.

Fourth. The screen H attached to the shoe E by the rods *m n*, provided with the bars *s* and the rock bar *o*, for the purpose specified.

No. 21,383.—JOHN D. TIFFT, of Cuyahoga, Ohio.—*Improvement in Grain Separators.*—Patent dated August 31, 1858.—This invention consists in having the discharge orifice of the fan case provided with a segment slide, by which the side of the orifice may be regulated as occasion may require, and using in connexion with said slide an adjustable blast director, the whole is so arranged as to answer admirably for winnowing both large and small grain.

*Claim.*—The employment of a circular side valve H, in combina-



tion with the directing board J, when the parts are constructed and arranged as shown and described for the purposes set forth.

No. 21,877.—AARON FOSTER, of Qiency, Ill.—*Improvement in Grain Separators*.—Patent dated October 26, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—The arrangement of the annular receptacles *m* and *n* in combination with the trumpet-shaped cone *o*; and also the employment of the interior of said cone as an additional receptacle together, for the purpose of assorting the mixed grains after separation from the wheat, according to their respective qualities, substantially as described.

No. 21,945.—WILLIAM R. COX, of Delhi, Iowa.—*Improvement in Grain Separators*.—Patent dated November 2, 1858.—This invention consists in the use of a series of suction blast spouts, provided with deflectors and attached to an inclined trunk, which communicates with a fan box, the several parts constructed and arranged in such relation to each other that dirt, chaff, and all foreign impurities may be separated from grain in a very expeditious and thorough manner.

This invention further consists in using in connexion with the above named parts a regulating valve attached to the inclined trunk and provided with a lever and weight, or their equivalents, in order to admit air into the trunk and reduce the strength of the blast thereon, in case it becomes too strong to act in the most efficient way on the grain.

The inventor says: I am aware that suction blast spouts have been arranged in various ways, and I therefore do not claim, broadly, the separating of dust, chaff, and other light impurities from grain, by subjecting the same to the action of a blast in passing through a spout or spouts.

But I *claim* the spouts E F, provided with the deflectors *c d*, connected by the trough I, and arranged relatively in respect to each other, and to the spout D and trunk A, substantially as and for the purpose set forth.

I further claim, in combination with the above, the loaded valve J, applied to the trunk A, and used in connexion with the spouts D E F, for the purpose specified.

No. 21,573.—CYRUS H. McCORMICK, of Chicago, Ill.—*Improvement in Machines for Cutting Grass, &c.*—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention. The inventor says: Disclaiming such combination of guard fingers and sickle as is shown in Jonathan Read's machine, patented March 12, 1842, what I *claim* is the combination of the sickle, having the scoloped or indented edge and serrated teeth, with a continuous series of fingers, having the back reversed angles for supporting the grain or grass to be cut to the edge of the sickle both above and below the edge, or above the edge only, substantially as described.

I also claim cutting out the middle of the upper parts of the fingers



that project over the sickle, as described in combination with the vibrating sickle, as described for the purpose specified.

No. 22,212.—ELIJAH WAGNER, of Westminster, Md.—*Improvement in Machines for Distributing Guano and other Fertilizers*.—Patent dated November 30, 1858.—The stirrer *d* and the feeder move in different directions, the one vertically and the other horizontally, and one moves faster than the other; thus, by means of uneven and of different motions, the guano is kept constantly open and is easily discharged. *O* is a cog wheel which is secured to the shaft connecting the carriage wheel, *p* is a cog wheel which is secured to the shaft or feed *e*, and motion is conveyed from *o* to *p* by means of the cog wheel *n*, which is in the hanger *m*.

*Claim*.—The combination of the stirrer *d* and feeder *e*, operated in different directions, the two being arranged in the manner and for the purpose specified.

No. 19,281.—JABEZ ROBINS, of Leominster, Mass., assignor to Himself, DANIEL K. HAINES, and S. RICHARDSON, of said Leominster.—*Improvement in Harrows*.—Patent dated February 2, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim a rotary wheel harrow, nor do I claim the application of a weight to the draught bar so as to rest on one side of the rotary wheel harrow, and by its pressure thereon cause the revolution of the wheel harrow while it is being drawn forward; nor do I claim a rotary wheel harrow made with its toothed rim in sections, as shown in the patent numbered 12,659, of the United States patents.

But I *claim* a rotary wheel harrow, as made with its tooth rim in sections adjustable with reference to the axis of the wheel, as specified, in order that the dimension of the wheel may be varied as set forth.

And with a wheel made adjustable as specified, I *claim* so applying the roller weight to its supporting arm, as to enable the weight to be adjusted nearer to or further from the center of the wheel, and with reference to the adjustable rim, as stated.

No. 19,259.—SAMUEL J. ORANGE, of Grayville, Ill.—*Improvement in Harrows*.—Patent dated February 2, 1858.—*A A* are two circular harrows which are connected by the beam or crossbar *B* and the bolts *C*. These bolts are firmly fixed in the beam *B*, and the harrows *A* are allowed to revolve upon them; the rollers *g* in the end of the bar *B* bear upon the arms of the harrows and keep them in their position.

By placing the harrows a short distance apart, they may be used to advantage for cultivating corn before it becomes too large to allow the bar which connects the two harrows to pass over it.

The inventor says: I *claim* the combination of the two harrows *A* with the connecting bar *B*, or its equivalent, when the harrows are so hung as to produce, by their connexion with it, and thereby with each other, a continued rotation of both harrows, substantially as set forth.



No. 19,489.—ORMAN COE, of Port Washington, Wis.—*Improvement in Harrows*.—Patent dated March 2, 1858.—The nature of this invention consists in the combination with the bars of a harrow-frame A of a series of revolving, circular, concave, forked harrow teeth B B B; said teeth serving for breaking up, or pulverizing, and preparing the soil in a condition suitable for receiving the seed, and also for covering in seed.

*Claim*.—The combination with the bars A of a harrow-frame of a series of revolving, circular, conical or concave, forked harrow teeth; said teeth being arranged oblique to the line of draft, and operating unitedly, substantially as and for the purposes set forth.

No. 19,494.—WILLIAM DE WITT and O. D. BARRETT, of Cleveland, Ohio.—*Improvement in Harrows*.—Patent dated March 2, 1858.—In the centre of the harrow A is the centre pin B fastened perpendicular to the frame of the harrow A by means of a screw, cut on its lower end, and two nuts. On the centre pin B, and movable around it horizontally, is the draught bar C, to which the team is attached by the hook D. Above the bar C, and movable like it around the centre pin B, is attached the weighted arm E, kept in its position perpendicular to the centre pin B by the brace F, attached and held at right angles to the bar C, on either side by the connecting rod H.

The inventors say: We are aware that the use of a weighted roller, or its equivalent, upon the periphery of a circular harrow, was patented by S. S. Hogle in March last. We do not claim the use of a weighted roller, or its equivalent, as specified by him.

But we *claim* the arrangement of centre pin B, draft bar C, arm E, weight G, with harrow A, in the manner and for the purpose specified.

No. 20,195.—JONAS C. CONKEY, of Washington, Ohio.—*Improvement in Harrows*.—Patent dated May 11, 1858.—This invention relates to the hanging of two wheels to the axletree, by means of which the harrows can be converted into a truck for the purpose of transporting it from place to place. The upper side of the axletree C is cut away so as to admit the shank of the axle H; the shank part H is hinged to the axletree C by a hinge joint *i*. The axles H I are kept steady in a vertical position, while the harrow is at work, by the rod L.

*Claim*.—The combination of the hinge *i*, axl H I, and axletree C, when arranged in connexion with revolving harrows, as described, for the purpose set forth.

No. 20,325.—VOSCO M. CHAFEE, of Grayville, Ill.—*Improvement in Harrows*.—Patent dated May 25, 1858.—This invention consists in the arrangement and construction of parts by which two rotary harrows A A, hung in the same frame, are made to overlap in their action without the agency of the third to cause them to do so, and also in the arrangement and construction of parts by which the distance they shall overlap may be adjusted.

*Claim*.—The combination of the side pieces D D<sup>1</sup>, crossbars C, or their equivalents, with the rotary harrowing wheels, the parts being



so arranged in connexion with each other, substantially as described, to produce the result stated.

No. 20, 410.—JOHN S. DAVIS, of Washington, Ohio.—*Improvement in Harrows*.—Patent dated June 1, 1858.—The nature of this invention consists in such a construction of a harrow that it may be conveniently made portable and transported from place to place. The pieces C to which the revolving harrows are attached by the wrists B are placed in the position seen in fig. 1, when the harrow is to be used. This brings the harrow into a horizontal plane, and the key *a* being shoved back to its point, it there holds the tenon of the pieces C from pulling out of the holes in the end pieces D.

*Claim*.—The arrangement of the harrows A, with the frame C D, the whole being constructed for operation conjointly in the manner and for the purpose set forth.

No. 21,113.—ADDISON BURDAN, of Macon, Mich.—*Improvement in Harrows*.—Patent dated August 10, 1858.—The engraving represents a perspective view of the machine exhibiting its several parts. A is the main frame; B the driving wheels; C the main shaft; D ratchet wheel; E the pall; F a bevel wheel; G a pinion; H the shaft; I the crank; 1 the tongue; 3 the tongue supporter; U is the harrow frame attached to the main frame A by bolts *z* and arched bars *x*, which are secured to the frame U at Y; guides V, tooth bars T, projections W, connexion J, plate L, connexion M, oscillating lever O, connexion Q, and joint S.

*Claim*.—The combination of tooth bars T, having projections W, with guide V, oscillating lever O, and frame U, the whole being constructed, arranged and operated as set forth.

No. 21,153.—JEREMIAH ROUTH and ABEL VAUGHN, of Grayville, Ill.—*Improvement in Harrows*.—Patent dated August 10, 1858.—This invention consists in two horizontal toothed wheels B B, with a vertical toothed wheel or wheels, and appropriate gearing, in such a manner that the resistance against the teeth of the vertical wheel shall give rotation to the horizontal wheels in opposite directions, and thus correct the side draft, without side dip of the horizontal wheels as represented in the engravings.

*Claim*.—The inventors say: We are aware that various harrows have been devised in which rotary motion has been given to a horizontal harrowing wheel, by means of a vertical toothed wheel upon a horizontal shaft; said vertical wheel being so hung as to take hold of the soil in passing over it, and so geared to the horizontal harrowing wheel as to give it a rotary motion by its own rotation. This we do not claim.

We *claim* the combination of the vertical toothed wheel D, with the horizontal toothed wheels B B, said wheels being connected by gearing as described, by which we secure the necessary rotation, without either side draft or dip of the horizontal wheels, as set forth.



No. 21,260.—DANIEL B. NEAL, of Mount Gilead, Ohio.—*Improvement in Harrows*.—Patent dated August 24, 1858.—The nature of this invention consists in the arrangement of the troughs and balls with the frame of the harrow.

*Claim*.—The arrangement of the troughs B and C (one oscillating and adjustable, the other being stationary, and both provided with balls) with a revolving harrow as described, substantially in the manner and for the purposes set forth.

No. 21,403.—DAVID C. AYERS, of Lumberland, N. Y.—*Improvement in Harrows*.—Patent dated September 7, 1858.—This invention operates as follows: The cutters *c* serve the function of cutting sods and preventing trash from collecting on the teeth, while the globular projections *a a*, at the base of the cutters, crush the clods severed by the knives and act in conjunction therewith as pulverizers. These projections also serve the function of preventing the frame from dragging upon the ground when the teeth have sunk into the soil their full length.

The inventor says: I *claim* the combination of tubular piece B, globular projections *a*, cutters *c*, and teeth T, constructed, arranged and operating together as described.

No. 21,439.—SAMUEL J. ORANGE and GEORGE BRIDELMAN, of Grayville, Ill.—*Improvement in Harrows*.—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim* the combination of the handles, or their equivalent, with the transverse beams D D, and rollers E E, and the circular frame A, substantially as described, by which we are enabled, by regulating the pressure on the handles, to guide the harrow in the line of the draft or deflect it, at pleasure.

No. 21,542.—SAMUEL WHITE, of Penfield, Ohio, assignor to HARLOW HERRICK, of La Grange, Ohio.—*Improvement in Harrows*.—Patent dated September 14, 1858.—The nature of this invention consists in the arrangement of a series of diverging shafts, armed with teeth radiating from the centre of the shaft. Each end of every shaft is provided with a journal, and revolves either by the friction of its own teeth upon the ground, or by means of cog gears attached to a spur wheel. The diverging shafts are so arranged that they can be made to diverge more or less by means of an adjusting apparatus.

*Claim*.—The adjustable plates C C, in combination with the revolving shafts E E<sup>1</sup> E<sup>2</sup>, and in connexion therewith the spur wheel K, all operating in the manner and for the purpose specified.

No. 19,365.—W. A. HORRALL & R. G. SIRWELL, of Grayville, Delaware.—*Improvement in Revolving Harrows*.—Patent dated February 17, 1858.—This invention consists in the employment of three wheels C C, having teeth and attached to a triangular frame A; two of the wheels being made adjustable, so that they may be brought nearer together or further from each other as required; all the wheels are



provided with pressure rollers so arranged as to insure their rotations with the forward movement of the machine, and at the same time allowing a certain amount of vibratory motion in a vertical direction, so that they may conform to the inequalities of the ground over which they pass.

The inventors say: We do not claim the employment or use of horizontal toothed wheels, for they have been previously used.

But we *claim* the employment or use of three horizontal rotary toothed wheels C C E, arranged as shown, viz: the back wheel E, having a permanent axis, and the two front wheels C C, being rendered capable of lateral adjustment, so that the width of the harrow may be increased or diminished as desired, and the space or width of ground included between the outer edges of wheels C C perfectly pulverized.

We also claim the elastic bars D D F, provided with pressure rollers *i i j*, and bearing on their respective wheels C C E<sup>1</sup>, substantially as described and for the purpose set forth.

No. 21,265.—WILLIAM H. MAIN, of Liverpool, Ohio.—*Improvement in Rotary Harrows*.—Patent dated August 24, 1858.—The nature of this invention consists in the construction of a harrow that may be used in combination with or separate from a seeding machine, so that when desirable the harrow may be used without the seeder.

*Claim*.—The manner described for causing the harrow to rotate, namely: by means of the standard E, the slat H<sup>1</sup> in the bar H, and spring K, operating in manner as set forth. Also the manner of raising the harrow from the ground by means of the adjustable bar H, and recesses L L, as described. These several devices combined as described are claimed in combination with a seeding machine, for the purposes set forth.

No. 21,580.—SALATHIEL S. THOMPSON, of Heller's Corners, Indiana.—*Improvement in Rotary Harrows*.—Patent dated September 21, 1858.—This invention consists in attaching two harrow wheels to a frame constructed and arranged in a novel way, whereby the wheels may be adjusted in a perfectly horizontal plane, so that they will, as the implement is drawn along, remain stationary or have no rotary motion, and also rendered capable of being adjusted more or less in an inclined position, so as to obtain by the draught movement a greater or less rapid rotation of the wheels as may be required.

The inventor says: I am aware that rotary harrows have been previously invented, and I therefore do not claim broadly rotary toothed wheels for such purpose.

But I *claim* attaching the toothed wheels D D to the frame A, formed of the bars *d d*, hinged together or connected at their front ends by a swivel joint *a*, and having their back parts attached to bars *e<sup>1</sup> e<sup>1</sup>*, connected by a pivot *f*, and secured in proper position by the segments *g*, and pins *g<sup>1</sup>*, substantially as and for the purpose set forth.

No. 21,577.—JABEZ ROBINS, of Boston, Mass.—*Improvement in Rotary Harrows*.—Patent dated September 21, 1858.—This invention



consists in the employment of two annular rotating harrows placed one within the other, connected in a peculiar way, and provided with weights and a draught beam, the whole being arranged whereby a very simple and efficient implement is obtained.

*Claim.*—The two harrows A C placed one within the other, and connected by the concave rollers *d* and bead *l*, in connexion with the draught beam D and frames E F, provided with the rollers or weights G H, the whole being arranged substantially as and for the purpose set forth.

No. 22,026.—WILLIAM H. MAIN, of Liverpool, Ohio.—*Improvement in Rotary Harrows.*—Patent dated November 9, 1858.—The nature of this invention consists in so arranging the driver's seat with respect to the harrow and to the point of draught, that the weight of the driver thereon shall rotate the harrow, and so that by a change in the position of the driver on the seat the teeth of the harrow will be caused to press deeper into the ground, or will press lighter, so as to break up the ground more or less, as circumstances may require; also so that by a change in the position of the seat the harrow shall rotate either to the right or left.

*Claim.*—The combination of the arm or centre pin B, draught bar or platform D, with the seat C, substantially as arranged, for the purpose of causing the harrow to rotate by the weight of the person on the seat.

No. 19,055.—JESSE WHITEHEAD, of Manchester, Va.—*Improvement in Harvesters.*—Patent dated January 5, 1858.—The nature of this invention consists in making the bearing wheel D, which is at the end of the machine nearest the standing grain, of such a formation as will admit of a part of the rim of such wheel being in front of the cutting knives C.

The inventor says: I am aware that concave wheels have been used heretofore on harvesters, therefore I make no claim to a concave wheel as such.

But I *claim* the concave supporting wheel D, constructed and located as shown and described, in combination with the recess in the shoe for receiving the rim of said supporting wheel, the whole being constructed in the manner and for the purposes set forth.

No. 19,137.—EZRA EMMERT, of Franklin Grove, Ill.—*Improvement in Harvesters.*—Patent dated January 19, 1858.—This invention consists in the use of a peculiarly constructed endless apron F, retaining hooks J J, receiving hook L, and binder's platform M, whereby the cut grain is removed from the platform, and retained at one end until a sufficient quantity is collected to form a sheaf, and then allowed to be readily taken from the receiving plate for binding.

*Claim.*—The peculiarly constructed apron F and retaining hooks J J, in combination with the binding hooks L and platform M, the whole being constructed and arranged for joint operation in the manner and for the purposes set forth.



No. 19,218.—SAMUEL W. TYLER, of Greenwich, New York.—*Improvement in Harvesters*.—Patent dated January 26, 1858.—The actuating wheel A is secured to the centre of the axle F, and has a zigzag groove formed in its periphery, which enables it to impart motion to the cutter blade by means of the pendulous lever *e* and the pitman *g*. The pendulous lever *e* is jointed to the standard *d*, which rises from its connexion with the central beam *f* of the frame of the machine. The foot of the standard *d* fits into a groove whose sides are formed by the checks *p p*, which are bolted to the beam *f*, and the foot of the standard *d* is also jointed to the horizontal lever *h*, which is placed immediately in front of the cross-beam *f*, and is jointed to a projection from said beam.

*Claim*.—The sliding head-piece *a*, to which the inner end of the finger-bar is hinged, in combination with the levers *h* and *m*, the movable standard *d*, the pendulous lever *e*, and driving wheel A, when the said parts are arranged for joint operation in the manner and for the purposes set forth.

No. 19,298.—M. G. HUBBARD, of Penn Yan, New York.—*Improvement in Harvesters*.—Patent dated February 9, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The attachment of the spring directly to the finger-bar, and placing the shoe on one side thereof and directly in the track of the supporting wheel, as specifically set forth.

No. 19,377.—FREDERICK NISHWITZ, of Brooklyn, New York.—*Improvement in Harvesters*.—Patent dated February 16, 1858.—To the back end of the draught pole E the lower end of a lever H is pivoted at *c*. This lever has a cord or chain *d* attached to it about its centre, passing over a pulley *e*, in the pole E, and attached to the front end of the frame A. A pawl, I, is attached to the lever H, which catches behind a plate J, (when the lever H is drawn fully back,) fitted in the pole E, and on the front end of a small lever *f* a stop, K, is attached to the plate J, and secured by a screw *h*. When the upper end of the lever H is drawn back the pawl I will catch behind the plate J, and the cord *d* will elevate the front end of frame A.

*Claim*.—The lever H, attached to the draught pole E, and connected by the cord or chain *d* to the front end of the frame A, in connexion with the pawl, lever *f*, and adjustable stop *k*, the whole being arranged to operate as and for the purpose set forth.

No. 19,344.—ALBERT D. BRIGGS, of Springfield, Massachusetts.—*Improvement in Harvesters*.—Patent dated February 16, 1858.—The object of this invention is to separate the cut grain, while being discharged in proper quantities from the machine to form sheaves or gavels, from the grain being cut, so that the latter cannot become mixed with the former and prevent the proper discharge thereof from the machine at regular intervals, and in a compact and perfect manner, the grain being discharged from the machine either automatically or manually.

*Claim*.—The combination of the intermittingly vibrating gate H,



intermittingly moving apron E, and adjustable plates E<sup>1</sup> E<sup>1</sup>, placed over the apron E, arranged as shown, so as to operate as and for the purpose set forth.

No. 19,447.—CHARLES ROBERTS, of Livonia, New York.—*Improvements in Harvesters*.—Patent dated February 23, 1858 —As the machine is drawn along the fingers *d d*<sup>1</sup> pass between the straws just below the heads containing the grain, and the grain is detached from the heads as the latter touch the front edge of concave H, by the teeth *e* of the cylinder I. The grain is carried up into the separator K by the apron L, and is winnowed therein, the clean grain passing into the lower end of the trough M, and the elevators *k*<sup>1</sup> carrying it up and discharging it into a bag placed below the upper end of the trough M. The fingers *d d*<sup>1</sup> are raised or lowered to the desired height by operating the windlass E.

The inventor says: I do not claim separately the separator K, for that is in common use. Nor do I claim, broadly, a toothed cylinder and concave, irrespective of the arrangement shown and described.

But I *claim* the arrangement and combination of the peculiarly curved teeth *d d*<sup>1</sup>, concave H, elevator L, separator K, and elevator M, as and for the purposes set forth.

No. 19,411.—GEORGE S. CURTIS, of Chicago, Ill.—*Improvement in Harvesters*.—Patent dated February 23, 1858.—The nature of this invention consists in a curved vibrating stirrup G, suspended within the circle of the driving wheel B; the stirrup is forked, *g g*, and has two friction rollers H H, which run on opposite sides of a serpentine cam C, in a manner to give a regular reciprocating motion to the cutter bar, and owing to being curved, is peculiarly adapted for use in combination with the slotted pillar blocks E, which support the driving wheel B, and adjust the height of the cutter.

*Claim*.—The stirrup G for vibrating the cutt bar when made of circular form at *h*, and with two prongs or bearings *g g* at its upper end, two side bearings *h*<sup>1</sup>, and an extension *i*, and when said stirrup is arranged astride the zigzag cam C, and to vibrate laterally on a pivot of a curved overhanging standard F, and operating in rotation to, and in combination with, the slotted pillar blocks E, substantially as and for the purposes set forth.

No. 19,463.—BENJAMIN YEAKEL, of Allentown, New York.—*Improvement in Harvesters*.—Patent dated February 23, 1858.—A is the frame work, B the tongue, with a roller C to relieve the draught of the horses; D is an oil box attached to the pitman E, which is self-oiling, for the purpose of making the pitman (which operates the cutters F) work easier and freer. The cutters F are made with a plain or sickle edge. The cutters R are attached to the sides of the teeth Q with screws or rivets, and can be made broader or narrower as may be required. The guard S, above, is to prevent choking.

*Claim*.—The combination of the finger Q, cutters R, and guard S, arranged and constructed substantially as described.



No. 19,422.—CHARLES HOWELL, of Cleveland, Ohio.—*Improvement in Harvesters*.—Patent dated February 23, 1858.—The nature of this improvement consists in so arranging and combining a raker's or driver's seat, of peculiar construction, with the machine, so that he can throw his weight either towards or from the finger-bar, or on either side of the driving-wheel.

*Claim*.—The revolving seat, when arranged in the manner substantially as and for the purposes set forth.

No. 19,442.—HAMILTON A. PARKHURST, of Fairfield, New York.—*Improvements in Harvesters*.—Patent dated February 23, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim connecting the finger-bar to the main frame by a hinge joint.

Neither do I claim a double-jointed coupling-frame.

But I *claim* connecting the finger-bar to the main frame by means of the intermediate frame B<sup>1</sup> O and O<sup>1</sup>, the same being hinged to the front and rear cross-timbers of the main frame, in a line, or nearly so, with the crank-shaft, for the purpose of relieving the drag of the finger-bar upon the ground, and allowing it to conform to uneven surfaces without varying the throw of the cutters through the guards, substantially as set forth.

Second. I claim the arrangement of the mechanism, as described, for the purpose of raising and lowering the main frame of the machine.

Third. I claim making the finger-bar in the "ogee" form, so that the base of the guards may be placed upon and fastened to the upper side thereof, and at the same time support the cutter-bar in rear of the front curve of the finger-bar, substantially as set forth.

No. 19,552.—ISAAC VAN DOREN, of Somerville, New Jersey.—*Improvement in Harvesters*.—Patent dated March 2, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that sickle-beams have been constructed with a sort of cap to protect reversible knives, and therefore I do not generally claim so constructing the sickle-beam as merely to furnish a cap for the sickle.

But I *claim* the arrangement and construction of a sickle-beam, substantially as described, so that it shall hold and keep firm the guard-fingers, and also by means of the arched lip C keep the teeth close to the fingers, and permit the use of an open guard.

No. 19,486.—WILLIS L. CHILDS, of Piermont, N. Y.—*Improvement in Harvesters*.—Patent dated March 2, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the arm P, bars T W, and slide U, operated and arranged as shown, or in any equivalent way, so that, by their joint operation, the twine or cord  $\alpha^1$  is adjusted around the sheaf, cut off from the main portion, and the ends twisted and tucked under the band, as described.



I also claim, in combination with the above binding device, the rake G, operated as shown, so as to have a proper relative movement with the parts constituting the binding device, as described, whereby the cut grain is raked into the receptacle Y at the proper time.

I further claim the discharging device formed of the lever Z, actuated from the axle M, through the medium of the lever B<sup>1</sup> and rod C<sup>1</sup>, when used in connexion with the rake and binding device, as described.

No. 19,483.—J. S. BUTTERFIELD, of Philadelphia, Pa.—*Improvement in Harvesters*.—Patent dated March 2, 1858.—This invention consists in a peculiar manner of hanging and arranging the reel, the means employed for raising and lowering the sickle, and also in the device employed for driving the same; the sickle is capable of being graduated as circumstances require.

The inventor says: I *claim*, first, the reversible cam Q, constructed as shown, namely, with the grooves *i k* in opposite sides, so that the sickle may be driven with either of two different speeds, for the cutting of either grass or grain, as may be desired.

Second. The bars E E F, with the finger-bar J and platform K attached, in combination with the lever G and wheel H; the whole being constructed as described, and arranged relatively with each other and the axle A, as shown, for the purpose set forth.

No. 19,590.—HENRY C. SMITH, of Cleveland, Ohio.—*Improvements in Harvesters*.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim any of the devices named and described as new, in themselves considered, or detached from each other. But what distinguishes my improvement from all others relates to the manner of elevating and depressing the cutter-bar by means set forth, and also in giving any desired pitch to the fingers, or keeping them in a horizontal position, by means of changing the relative position of the neap, in reference to the frame D and drag-bars E E, and at the same time changing the point of draught, as the nature of the case may require.

I *claim* the manner described of raising and lowering the cutter-bar by the combined action of the levers H I J, the flexible rod or cord P P<sup>1</sup>, levers R R<sup>1</sup>, and wheel S; this I claim when constructed and relatively arranged and operating as described, and also when used in connexion with the drag-bars E E, articulating upon the axle C, as set forth, for the purpose specified.

No. 19,703.—JOHN M. LONG, PETER BLACK and ROBERT ALLSTATTER, of Hamilton, Ohio.—*Improvement in Harvesters*.—Patent dated March 23, 1858.—The machine is supported by wheels W W<sup>1</sup>; the axle *a* of the former being secured to the box *b*, movable in the curved slot *c* of a guide-piece *d*, secured to the gear support A of the main frame. The box *b* is secured to the guide-piece *d* by a nut *e* on the end of axle *a*. The lever *l*, secured to the box, serves to move the box in its guides *d* when nut *e* is loosened. The stay-rod G gives great stiffness to the bar E above it, and prevents it from sinking when the weight of the



platform and raker comes upon it; the rod passes through two eyes *m m* at the extremities of depending staples in the under side of the bar.

The inventors say: We *claim*, first, the combination of the lever-box *b*, guide-piece *d*, and short axle *a*, with nut and screw, constructed, arranged, and operating substantially as and for the purpose set forth.

Second. The stay-rod *G*, in combination with the bar *E*, substantially as and for the purposes set forth.

Third. Supporting the rear of the platform by suspension from the stay-rod, substantially as and for the purposes described.

No. 19,803 — WILLIAM VAN ANDEN, of Poughkeepsie, N. Y.—*Improvement in Harvesters*.—Patent dated March 30, 1858.—The nature of this invention will be understood by the claim and engravings.

The inventor says: I *claim* the use of a rectilinear spring, in combination with the detent cam *J*, having guides *K*<sup>1</sup> and *K*<sup>2</sup> on the face thereof, for the purpose of actuating the cutter of a harvester-machine endwise in opposite directions from a state of rest by the impulsive stroke of the spring, which said spring is charged by its opposite curvatures, while the cutter remains at rest; the said parts being made and operated substantially as set forth.

Second. I also claim the employment and use of the cam wheel *J*, having on its face guides *K*<sup>1</sup> and *K*<sup>2</sup>, substantially as set forth, in combination with a crank-shaft, for the purpose of giving two vibrations to the cutter to one revolution of the cam-wheel, substantially as described.

Third. I also claim the combination of the spring, (or spring, as may be used,) with the cam-wheel, crank-shaft and vibrating lever attached to the cutters for the purpose of operating the same, substantially in the manner set forth.

No. 19,749.—GEORGE E. CHENOWETH, of Baltimore, Md.—*Improvement in Harvesters*.—Patent dated March 30, 1858.—The operation is as follows: As the drum *D D* revolves, driven by the spur gearing *G G*, it communicates a reciprocating motion to the pin *P* and the slide-bar *B B* attached to it. This bar, being attached to the knife-bar *K K*, imparts a corresponding motion to the knives.

*Claim*.—Compensating for the wear of the worm or groove in the driving cylinder, by making the parts of that cylinder adjustable, as described, thus giving increased certainty to the action of the cutters.

No. 19,884.—ISAAC VAN DOREN, of New York, N. Y.—*Improvement in Harvesters*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim elevating the sickle by means of a plate or part swinging on a centre, and moving in a circle, and carrying the sickle with it, this having been done by W. A. Kerby in his invention, patented 1856.

But I *claim* the arrangement and connexion of the movable part *E* with the fixed part *B*, by means of the two connecting curves 3 and



4, or their equivalent, to secure proper motion to the part E without any necessary support or connexion from the centre G.

I also claim, in combination with the parts B and E, the secondary movable part K, substantially as described, to bring the sickle, whatever its position on the curve B, level with the cutting surface.

I also claim, in combination with the parts B E and K, the use and application of the universal-joint C, in connecting the sickle lever to the machine, substantially as described, to allow of the change in the position of the sickle, in the manner described.

No. 19,864.—W. K. MILLER, of Canton, Ohio.—*Improvement in Harvesters*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim to have invented the separate features of balancing the cutter-bar and its appendages upon a supporting shoe or roller, nor of hinging the same to the central axis around which the tongue or hounds of the machine turn, nor of arranging the central line of draught so as to more nearly equalize the resistance in drawing on both sides thereof, as I am aware that such, in different connexions, are not new.

But I *claim* the combination of the draw-bar F F and cutter-bar P when the same are balanced upon the sustaining-shoe R, and hinged to the axle of the driving-wheel A, distinct from the hounds of the draught tongue, as described, with the tongue H so attached that the line of its draught will be equidistant from the central longitudinal lines of the driving-wheel A and sustaining-shoe R the several parts being constructed and arranged with respect to each other as set forth, for the purpose specified.

No. 19,919.—DAVIS W. ENTRIBER and LOUIS H. DAVIS, of Westchester, Pa.—*Improvement in Harvesters*.—Patent dated April 13, 1858.—This improvement has reference to the manner of elevating and lowering the cutter-bar, and to the manner of throwing the cutting apparatus into and out of gear. The machine is constructed with the side-pieces of the frame extending rearward and permitting the bolting of piece M either upon their upper or lower faces, the same bolts serving for both positions of the bar. The upper and lower faces of the side-pieces being respectively on the same level, and in every respect prepared for the reception of the bar.

The inventors say: We *claim*, first, the combination of shaft K, curved attachment D, lever l, pulley G, tongue C, and ratchet H, substantially as and for the purpose set forth.

Second. The combination of the slotted side-piece upon the main axle with the crank working in said slot, substantially as and for the purpose set forth.

Third. The combination of the rollers *p p*, above and below the tongue, with the vertical plates *j z*, as and for the purposes specified.

No. 19,999.—HENRY MARCELLUS, of Amsterdam, N. Y.—*Improvement in Harvesters*.—Patent dated April 20, 1858.—This invention relates to an improvement in that class of harvesters in which a pole



plank is employed to serve as a rest for a lever by which the cutting device is raised and lowered. The invention consists in attaching the draught pole to the pole plank at a point intermediate between the castor wheel and the outer end of the pole plank, and the point where the pole plank is connected with the machine.

The inventor says: I do not claim the pole plank E, with castor wheel G attached, for relieving the draught pole of the weight of the front end of the machine when the sickle is raised, for that has been previously used.

Nor do I claim attaching the draught pole to the pole plank irrespective of the particular arrangement, or the point where the pole is attached, as shown and described.

But I *claim* connecting the draught bars *a a* of the draught pole to the pole plank E at a point intermediate between its castor wheel G at the front end of the pole plank and the point of connexion of the pole plank with the machine, substantially as shown and described, for the purpose set forth.

No. 20,050.—R. DUTTON, of Dayton, Ohio.—*Improvement in Harvesters*.—Patent dated April 27, 1858.—This invention is designed to facilitate and render convenient the raising and lowering of the platform and cutter-bar of reapers and mowers.

*Claim*.—The employment of the loose hollow sliding sleeve G between the hub of the driving-wheel and the short axle F, in combination with the slotted segment C, on the side of the platform, and the adjustable axle F, when the slotted segment is provided on one of its inner sides with the cogs *c*, and the axle with pinion *b* on its inner and screw thread *f* and adjusting jamb nuts *h i* on its outer end; the several parts being arranged to operate substantially as and for the purpose set forth.

No. 20,080.—J. B. McCORMICK, of Versailles, Kentucky.—*Improvement in Harvesters*.—Patent dated April 27, 1858.—This is an improvement on the mode of discharging the cut grain or hemp from a machine patented by this inventor June 2, 1857. Its object is to facilitate the manual work or process so that the material is discharged upon the ground in compact gavels, two at a time.

The inventor says: I do not claim a rod K placed on bars and so manipulated by the attendant as to form an adjustable or movable rest or platform for the ready discharge of the cut grain or hemp in gavels, for such device has been used in connexion with certain concomitant parts, and was formerly patented by me.

But I *claim* the separator H<sup>1</sup>, formed of the bar H and rods *d d*, in combination with the adjustable rod K, bars I I<sup>1</sup>, one or more seat D, and reel provided with concave beaters, when the several parts are constructed, relatively arranged, and operated as and for the purpose set forth.

No. 20,152.—R. H. FISHER, of Claremont, New Hampshire.—*Improvement in Harvesters*.—Patent dated May 4, 1858.—In this harvester the frame A is so arranged that it may be readily raised or lowered,



and the mechanism which operates the sickle J thrown in and out of gear with the greatest facility. The finger-bar P is attached in the main frame in a new way, so that the front edge of the finger-bar and sickle may be more or less elevated, as circumstances require.

The inventor says: I *claim*, first, mounting the main frame A on the axle B, so that the frame may slide freely thereon, in connexion with the spirally slotted collar K, placed on the axle, and receiving a pin *k* attached to the axle, substantially as shown and described, whereby the mechanism which operates the sickle may, when desired, be readily thrown in and out of gear with the driving-wheel.

Second. Raising and lowering the sickle J by means of the pulley M placed loosely on the axle B, and the chain *l* attached to the back part of the main frame and to the pulley, substantially as described.

Third. Attaching the finger-bar P to the main frame A, by overlapping the end of the finger-bar and the lower end-piece *n* of the main frame, the finger bar resting on a semi-spherical projection *o* on the end-piece, and adjusted by the screws *p*, substantially as and for the purpose set forth.

No. 20,180.—LEWIS MILLER, of Canton, Ohio, assignor to C. AULTMAN & Co., of said Canton.—*Improvement in Harvesters*.—Patent dated May 4, 1858.—This invention consists in so hanging and bracing the cutter or finger bar of a mowing machine to the main frame as that, whilst it is sufficiently rigid to withstand all the resistance against it when the machine is in operation, yet it may be raised up, folded over, and rested upon the main frame.

The inventor says: I *claim* so hinging the bar or beam which carries the cutters and fingers to the beam L as that it may be raised up, folded over, and carried upon the main frame, substantially as described.

I also claim, in combination with the beam L, hinged as described, the braces N S, rigidly connected therewith, but hinged at their opposite ends, so that the beam L may rise and fall at pleasure, but be permanently braced in its proper position to give the cutter and finger bars or beams, in turn, their proper working position, as described and represented.

No. 20,181.—LEWIS MILLER, of Canton, Ohio, assignor to C. AULTMAN & Co., of said Canton.—*Improvement in Harvesters*.—Patent dated May 4, 1858.—To the bottom of the shoe A is attached a sole or runner *a* which is fixed to the toe of the shoe. A lug *b* is connected to the shoe which receives a screw *c* that passes through one of a series of adjustable holes in the bent-up end of said shoe. B is the inner shoe with a supporting adjustable wheel C in the front part and in advance of the shoe, so that the said wheel will have rolled or passed over the cut grass before the shoe come to it.

*Claim*.—In connexion with the inner shoe and adjustable supporting wheel, when said wheel is in advance of the point of the divider or shoe, as set forth.



No. 20,182.—LEWIS MILLER, of Canton, Ohio, assignor to C. AULTMAN & Co., of said Canton.—*Improvement in Harvesters*.—Patent dated May 4, 1858.—The platform C is hinged to the main frame A at its front and rear by the beams D. F is the outside reel-post connected to the platform, and G the inner reel-post connected to main frame. The journals *b* of the reel-shaft H is supported and rotates in the reel-post F, but its other journal *c* is square and passes through a corresponding square opening through a ball or eye *d* that will maintain the plane of the longitudinal axis of the reel-shaft.

*Claim*.—So combining a reel, with a platform and main frame that are hinged together, as that the raising and lowering of either shall not in anywise injuriously affect the rotation and uniform action of the reel or change its position with regard to the cutters, for the purpose and in the manner substantially as described.

No. 20,221.—OREN STODDARD, of Busti, N. Y.—*Improvement in Harvesters*.—Patent dated May 11, 1858 —This invention consists in the use of a supplementary sickle D attached to the shoe A at the outer end of the cutter-bar B, and arranged so as to be operated from any of the usual reciprocating sickles, and at the same time to cut vertically and at right angles with the sickle proper. The object of the invention is to cause the cut grass or grain to be perfectly divided from the standing grass or grain, so that a clean, close, and even swath is obtained, and a free path for the team.

*Claim*.—The supplementary sickle D connected with the sickles proper C, and placed relatively with the sickle C, so as to operate as and for the purpose set forth.

No. 20,225.—HENRY C. SMITH, of Cleveland, Ohio.—*Improvement in Harvesters*.—Patent dated May 11, 1858.—The rabbet or groove *c* in the heel of the cutter-bar is for the purpose of preventing the flexible rod from being interfered with by cut grass or other obstructions. The nature of this invention will be further understood by reference to the claim and engravings.

The inventor says: I *claim* the application of the intermediate wheel X at the end of the finger-bar, when used in combination with the curved lever Y and flexible rod W, arranged and operating substantially as specified.

I claim also the stops *a a* connected to the frame and placed in such position to the line of draught as will tend to counteract the dragging of the guards or finger-bar upon the ground, when hinged to the axle of the driving-wheel by the arms M M<sup>1</sup>, substantially in the manner and for the purpose described.

I claim also the steps *d d*<sup>1</sup> in combination with the spurs *f f* attached to the arms M M<sup>1</sup>, for the purpose of raising the cutter-bar in connexion with the described system of leverage, as set forth.

Also, I claim the rabbet groove *c* formed in the heel of the cutter-bar in the manner and for the purpose described.

No. 20,227.—JOHN S. TROXEL, of Mount Pleasant, Pa.—*Improvement in Harvesters*.—Patent dated May 11, 1858.—In this invention



any reel-post at the outer end of the reel is dispensed with, by means of the revolving yoke lever C being hung on main shaft. Yoke lever C is adjustable by means of slot F in lever E and connecting-rod G and bolt c. The line of the blades is changed by means of the movable rear arms of the reel and the bolt T passing through both sets of arms and the metallic plate.

*Claim.*—Hanging and operating reels for harvesters on the main shaft by means of yoke lever C and slotted lever E, rod G, and movable arms L, slotted blades d, pulley and strap b, and slotted plate B, with screw bolt T, as set forth and described.

No. 20,191.—C. B. BROWN, of Alton, Ill.—*Improvement in Harvesters.*—Patent dated May 11, 1858.—This invention consists in the employment or use of an endless apron F and guide-rods I K, arranged or placed relatively with each other and the sickle or cutting device, whereby the hemp, as it is cut and one swath is formed, is conveyed back from the sickle and deposited on the ground at a sufficient distance from the standing hemp to allow an unobstructed walk or track for the team when the succeeding swath is being formed.

The inventor says: I am aware that endless aprons have been applied to harvesters, and arranged in various ways, for the purpose of discharging the cut grain therefrom.

But I am not aware that an apron has been arranged as shown, and used in connexion with guides, so as to discharge the cut hemp at a distance from the standing hemp, in order to form an unobstructed track for the team. I do not claim, therefore, an endless apron, separately considered, or independent of the arrangement shown.

But I *claim* placing the endless apron F in an oblique position with the sickle E, so as to operate as and for the purpose set forth.

I also claim the endless apron F, in combination with the guide-rods I K and sickle E, when the several parts are placed relatively with each other, as shown, so as to operate as and for the purpose specified.

No. 20,271.—MARTIN HALLENBECK, of Albany, N. Y.—*Improvement in Harvesters.*—Patent dated May 18, 1858.—The tail-bar C is attached to the bar A by a strong hinge a, which permits it to be moved up and down. From near the point of junction of bars C and A a stout arm or lever Y is carried up to near the front end of the bar A, and then attached to an arm or arc x. A small wheel V is attached to the bar C, outside of the hinge a, to support the rear of the machine and steady the heel-bar.

*Claim.*—The tail-bar C hinged to the bar A, as described, and having the supporting wheel V at its rear end, in combination with the lever Y, for adjusting the inclination of the cutters, when these several parts are constructed, arranged, and operated in the manner and for the purpose set forth.



No. 20,272.—MARTIN HALLENBECK, of Albany, N. Y.—*Improvement in Harvesters*.—Patent dated May 18, 1858.—The bar E traverses in a groove separated from the heel-bar G by a flange of metal *t*, which rises as high as the upper surface of the cutter. To the top of the cutters coupling slides *m* are attached, serving the purpose of fastening the knives or cutters to the bar and to each other, and strengthening the cutters.

*Claim*.—The coupling bars *m*, as described, and for the purposes set forth; the cutters fitted to move the level of the heel-bar, in combination with the separate guide caps and coupling bars. The above improvements I claim, substantially as described and for the purposes set forth in the specification.

No. 20,334.—J. H. CONKLIN, of Rockford, Ill.—*Improvement in Harvesters*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the vibrating divider G, in combination with the cutting apparatus, substantially as described, whereby the grain is gathered into the cutters E E, in order that the parts of the machine following after may perfectly clear the standing grain, as described.

Second. The curved or turned up and slotted ends of the finger-bar *e*, as set forth, in combination with a vibrating lever S, as and for the purpose specified.

No. 20,394 —WILLIAM H. SEYMOUR and HENRY PEASE, of Brockport, New York, assignor to WILLIAM H. SEYMOUR and DAYTON S. MORGAN, of said Brockport.—*Improvement in Harvesters*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

We do not claim hinging the tongue to the frame of the machine, nor supporting it between guides, nor raising and lowering the cutter by elevating and depressing the rear end of the tongue when the latter is combined with a lever, screw, windlass, or other similar contrivance to aid the attendant of the machine in raising and lowering the end of the tongue.

But we *claim* the arrangement of the tongue D on a pivot in advance of the cutter, and in a guide E provided with a detent in rear of the cutter; the whole being arranged as described, so that the attendant can conveniently and readily by means of the link E raise the cutter by lifting directly the rear end of the tongue, as set forth.

No. 20,416.—ANDREW B. J. FLOWERS, of Greenfield, Indiana.—*Improvement in Harvesters*.—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* attaching the frame or platform G and wheel C to a frame A, substantially as shown, so that both may be turned or cramped by the driver from his seat B, for the purpose of allowing the machine to be turned within a small compass.

I also claim operating the sickle J, from the driving-wheel C, by means of the shafts *w* C<sup>1</sup> 3, connected by universal joints *d*<sup>1</sup>, and attached to their respective frames, when said shafts, thus jointed or



connected, are used in combination with the arrangement of the driving-wheel and platform, so that the whole may operate conjointly, as described.

No. 20,457.—D. B. WAITE, of Spring Water, New York.—*Improvement in Harvesters*.—Patent dated June 1, 1858.—This invention consists in a novel arrangement of means for operating the cutting device, and an arrangement of parts for raising and lowering the same; also, in a peculiar arrangement of parts, whereby the device by which the cutting device is operated may be readily thrown in and out of gear. The invention further consists in a peculiar means employed for regulating or controlling the draught pole as regards its vertical motion or position.

The inventor says: I *claim*, first, operating the sickles *m m* by means of the levers *L L*, attached to the bar *H*, the rods *n n*, and lever *M*, actuated by the cam *O*, the parts being combined and arranged relatively with each other, substantially as described.

Second. Attaching the sickles *m m* to the adjustable bar *H*, arranged as shown, and used in connexion with the lever *I*, whereby the sickles may be raised and lowered with facility.

Third. Pivoting the oscillating lever *M* to the bar *N*, which is arranged as shown, so that the lever *M* may be thrown in and out of gear with the cam *O*.

Fourth. The sliding plate *F*, placed on the frame *A*, and arranged substantially as shown, so as to regulate or control the draught pole, and consequently the position of the sickles, as occasion may require.

No. 20,525.—THOMAS WINDELL, of New Albany, Indiana.—*Improvement in Reaping Machines*.—Patent dated June 8, 1858.—The nature of this invention consists in the arrangement of the revolving rake, and the several parts which operate the belt which drives and the belt to which said rake is attached.

*Claim*.—The arrangement of the rake *a* on the endless belt *b*, operated around and below the stationary platform *C*, in the manner set forth, in combination with the shaft *c*, belt *d*, and lever *H*, when these several parts are constructed, arranged, and operated in the manner and for the purpose set forth.

No. 20,600.—S. WILLIAMS, of Stockton, California.—*Improvement in Harvesters*.—Patent dated June 15, 1858.—This invention has reference to the manner of adjusting the cutting apparatus and platform *G*, and to the manner of giving a temporary elevation to the cutting apparatus for the passage of obstacles.

The inventor says: I *claim*, first, the combination of the draught piece *D*, side piece *f*<sup>1</sup> of frame standard *E*, lever *L*, and rod connecting the same with the frame arranged for joint operation, substantially as described.

Second. The short axles *A A*<sup>1</sup>, depending arms thereof, suspension pieces *P*, finger-bar *B*, and wheels *W W*<sup>1</sup>, connected together substantially as described, in combination with the aforesaid arrangement for elevating the finger-bar; the whole being constructed and arranged and operating substantially as and for the purposes set forth.



No. 20,593.—SAMUEL H. SMITH, of Magnolia, Illinois.—*Improvement in Harvesters*.—Patent dated June 15, 1858.—The rake is attached to the reel by means of a slide C, guide *e* holding the slide to its place; rod *a* running from the rake *b* through the beater and through the shaft *h* of the reel, holding the rake to its place by means of the spiral spring *k* on the end of the rod *a*.

The inventor says: I do not claim any of the parts separately.

But I *claim* the application of the rake to the reel of a reaping-machine by means of the slides C, guides *e*, rollers *d*, longitudinal planes *i*, and rod spiral spring *k*, when these several parts are constructed and arranged as set forth, for the purposes specified.

No. 20,719.—WILLIAM F. KETCHUM, of Buffalo, New York.—*Improvement in Harvesters*.—Patent dated June 29, 1858.—Figure 3 is a side sectional view of a part of the machine, showing the plate or frame E F and the rock-shaft *c*. G represents the plates or spokes of the wheel; A, the zigzag groove in the interior of the wheel; B C is the rock-shaft, with its arms; D is the pitman, and H are the boxes or bearings below the plate or frame, in which the rock-shaft rests.

The inventor says: I *claim*, first, the plate E E, as a substitute for the usual main frame, placed mainly within the rim of a driving-wheel, whose hub and spokes or supporting plates are placed at the outside laterally of the rim, as described.

Second. The internal zigzag groove in combination with the rock-shaft, with its arms for vibrating the cutters, the whole arranged and operating as described.

Third. Supporting the boxes for the main shaft and the rock-shaft upon a plate, or its equivalent, placed mainly within the rim of the driving-wheel, as set forth.

No. 20,813.—JEREMIAH MITCHELL, of Gosport, New York.—*Improvement in Harvesters*.—Patent dated July 6, 1858.—The nature of this invention consists in the arrangement of the devices for making a tilting jack, to be attached to the cutter-bar of reaping-machines for the purpose of regulating the cut.

*Claim*.—Combining with the cutter-bar of a harvesting-machine, in the manner described, the tilting jack constructed as described—that is to say, having the revolving handle G, spring chuck H, stationary catch plate F, pinion E, and rack-bar D, in combination with the wheel C; these several parts being constructed and relatively arranged with respect to each other, and to the cutter-bar, and operating in the manner and for the purpose set forth.

No. 20,806.—JOHN P. MANNY, of Rockford Illinois.—*Improvement in Harvesters*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—In combination with a main frame A, supported on a fixed position that is parallel with the surface of the ground at all times, and a finger-bar K attached thereto, and operated as described, one arm of the said frame extended sufficiently to the rear to project



over or behind the finger-bar of the machine, substantially in the manner and for the purpose described; and this I claim, whether the caster wheel E be in front of or behind the driving-wheel, as described.

No. 21,093.—J. V. TRUMP, of Somerville, New Jersey.—*Improvement in Harvesters*.—Patent dated August 3, 1858.—This invention consists in the combination of peculiar knife guards, with a press plate finger-beam and reciprocating cutters, for the purpose of making a more efficient, cheap, and convenient harvester.

The inventor says: I do not claim any of the devices separately.

But I *claim* the combination of the knife guards D with the press plate A, the finger-beam C, and the reciprocating cutters E, when these several parts are constructed and relatively arranged as described, to operate conjointly in the manner and for the purpose set forth.

No. 21,125.—MARCUS E. ELLSWORTH, of Hudson, Ohio.—*Improvement in Harvesters*.—Patent dated August 10, 1858.—This invention relates to the mounting of the driver's seat upon the gear-plank or frame in such a manner that in raising or depressing the cutter-bar the centre of gravity of the seat is changed relatively to the machine itself, and consequently an equilibrium is preserved.

*Claim*.—The described manner of attaching the seat to the gear-plank by means of the rods M N, or their equivalents, having a pin or hinge point, both upon the gear-plank and footboard, in combination with the rods O and P, or their equivalents, which connect the footboard C directly with the reach-board E, all operating in the manner and for the purpose set forth.

No. 21,401.—R. L. ALLEN, of New York, N. Y.—*Improvement in Harvesters*.—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* elevating the cutting apparatus and balancing the machine in going over stones, stumps, and other obstructions, and traversing hill-sides by means of the long raker's and driver's seat, in combination with lever *p*, as set forth.

I also claim constructing the spring axle of three several pieces, clamped and riveted in the manner set forth and for the purpose set forth.

I also claim the position of said axle F, the same being at right angles with the line of draught, and performing the office of spring and axle, and fastened by bolt *x*, as described.

I also claim the form of the socket piece for receiving the ends of the spring standard, to support the raker's and driver's seat Q<sup>1</sup>.

I also claim the construction of the double shoe and standard, adaptable to the cutting of grain or grass, as set forth, the same being in three pieces, the pieces being put together in a particular way.

I also claim making the shoe under the mortise thick at edge *a*<sup>1</sup>, and thinner at *a*, in order to give greater thickness and strength to the finger-board along *a a*, as set forth.



No. 21,587.—McCLINTOCK YOUNG, jr., of Frederick, Md.—*Improvement in Harvesters*.—Patent dated September 21, 1858.—The nature of this invention consists in the new arrangements for operating the rake of harvesting-machines, whereby the cut grain is delivered in gavels at the side of the machine, in the path which has been passed over by the team, while the rake is, during every part of its operation, confined within the limits of the platform, and does not interfere with any of the operative parts, or prevent the driver from being seated on the machine.

The inventor says: I *claim* the combination of the handle J, shaft D, arm L, pitman M, and guide R, or their equivalents, when arranged and operated substantially in the manner and for the purpose specified.

I also claim making the gatherers F adjustable on the arms E of the reel, as and for the purpose specified.

No. 21,612.—DAVID S. McNAMARA, of North Hoosick, New Jersey.—*Improvement in Harvesters*.—Patent dated September 28, 1858. This invention consists in constructing the frame of the machine in a peculiar manner, whereby great strength with lightness is obtained, and suitable provision made for “straining” the frame or bringing it back to its original proper position in case certain parts became casually displaced by use, and are made to assume undue positions detrimental to the perfect operation of the machine.

The inventor says: I *claim*, first, constructing the frame of the machine of the bars *a b c d*, end-piece H, and finger-bar F, in connexion with the trusses E D K, when the whole are arranged substantially as and for the purposes set forth.

Second. In combination with the frame constructed as above, the shoe G, when constructed as described, and secured by the finger-bar F and end-piece H, in the manner and for the purposes set forth.

No. 21,681.—GEORGE F. JEROME and MOSES JEROME, of Mineola, New York.—*Improvement in Harvesters*.—Patent dated October 5, 1858.—This invention relates to an improvement in harvesters, whereby the raker may with the greatest facility rake the cut grain from the platform in such a manner that it will fall on the ground nearly in line, and back of the driver's seat, at right angles with the path of the movement of the machine, and at a sufficient distance from the standing grain to allow abundant room for a clear, unobstructed space for the team on the succeeding round, and at the same time leave the grain so that the butts will be in a right line, and in such a state that it may be readily gathered and bound by an attendant.

*Claim*.—The guard F, formed with an oblique portion *c*, in combination with the seat I, placed relatively with respect to each other and the platform D, as shown and described, and for the purpose set forth.

No. 21,792.—JOHN WOODY, of Mount Vernon, Indiana.—*Improvement in Harvesters*.—Patent dated October 12, 1858.—This invention consists, first, in a peculiar means employed for raising and lowering the reel and retaining the same at any desired height; and, second, in a wing or divider of a peculiar construction.



The inventor says: I *claim*, first, placing the reel J between arms I I, which have their back ends pivoted to the machine, and their front ends connected with the eccentrics H H on the shaft G, by means of the yokes *a a*, substantially as and for the purpose set forth.

Second. The roller O attached to the upper part of the wing or divider N, as and for the purpose set forth.

No. 21,741.—GEORGE E. COOPER, of Baltimore, Maryland.—*Improvement in Harvesters*.—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the combination of the straining bar, finger tube, and adjusting screw, with the arms upon which the cutting blade is mounted, for the purpose of keeping the cutter, which is made thin and without stock, under constant tension, substantially as described.

Second. Combining the lever of the shifting clutch with the lever for raising and lowering the cutting apparatus in the manner described, so that when it is necessary to stop the motion of the cutter, the act of depressing the lever performs the three-fold duty of raising the cutter, stopping its motion, and the motion of the raking mechanism, as described.

I do not claim, however, either of these levers, separately considered, nor the functions they perform.

Third. The arrangement of the raking mechanism consisting of two hands, which open as they advance over the platform on each side of the cut grain, and close as they recede, to form the cut grain into a sheaf, and deliver it at the rear of said platform, substantially as described.

No. 21,804.—JOHN K. HARRIS, of Allensville, Indiana.—*Improvement in Harvesters*.—Patent dated October 12, 1858.—This invention relates to that class of harvesting machines in which the cutter-bar has a longitudinal reciprocating motion imparted to it by means of a rack-shaft and pinion meshing alternately on opposite sides with cogs on the driving-wheel, and consists in a novel construction of rocking pinion, which, by reducing friction and avoiding sudden concussions and lost or intermittent motion, lessens the draught and wear and tear of the machine, and, without change of parts, admits of backing the machine with no transmission of motion to the cutter-bar or sensible resistance from the pinion.

*Claim*.—The rocking pinion H, constructed substantially as set forth, with cogs *p* and *p*<sup>1</sup> adapted to yield, as explained, when passing the ends of the wheel cogs, or on the backward motion of the drive-wheel.

No. 21,827.—ROSEWELL H. FISHER, of Claremont, New Hampshire.—*Improvement in Harvesters*.—Patent dated October 19, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the combination of the connecting rod *e*, slide bar *c*, eccentric wheel *d*, rod *f*, and lever *g*, with the cutter *k*, for the purpose of throwing said cutter-bar in and out of gear, when the several parts are arranged and operated as set forth.



Second. The arrangement of the plates *h*, the cutters *i i i*, the slotted wheels *n n n*, and the cutter-bar *k*, with the fingers *j j*, the same being conjoined, constructed, and operated in the manner and for the purpose described.

Third. I claim securing the reel *H* to the wheels *J J*, when it is operated and adjusted by the means set forth, and for the purpose specified.

No. 21,854.—JOSEPH D. SMITH, of Lancaster, Ohio.—*Improvement in Harvesters*.—Patent dated October 19, 1858.—This invention consists in constructing a portion of the reel frame with a horizontal joint near the centre of its length, so that the front end of said frame may have a horizontal movement.

*Claim*.—Having a horizontal joint in and near the centre of the reel frame piece *P*<sup>2</sup>, substantially as and for the purposes set forth.

No. 21,993.—CHARLES T. STETSON, of Amherst, Mass.—*Improvement in Harvesters*.—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* combining two double-edged cutting blades with each of the vibrating cutter shanks for the purpose of reducing the number of joints in the cutting apparatus, substantially as set forth.

I also claim combining an inwardly extending curved arm *a*<sup>1</sup> with the inner end of the finger-bar, when the vibrating end of said arm is made to play between guiding cheeks, or in a guiding groove, and the said inner end of the finger-bar is jointed to a vertically sliding head, all substantially in the manner and for the purpose set forth.

No. 22,032.—HOSEA W. READ, of West Windsor, Vt.—*Improvement in Harvesters*.—Patent dated November 9, 1858.—The inventor says: In carrying out my invention, I employ a carriage *A*, whose front end is supported by a shaft or axle *B*, sustained by two driving-wheels *C D*. The journals of the said shaft *B* extend beyond the carriage *A* or the boxes *a a* thereof, and into boxes *b b* of a tilting frame *E* formed and arranged with respect to the carriage *A*. The rear part of the carriage is sustained by two swivelling wheels *F F*, from the upper end of whose forks or holders *G G* two arms *H H* extend horizontally and parallel to one another and directly over a rack *I* arranged upon the platform *K* of the carriage.

*Claim*.—In its arrangement and combination with the tilting frame and the machinery for operating the cutters applied thereto, as described, a screw-rod or mechanism for spreading the bars of the tilting frame asunder, so as to throw the pinions of the cutter mechanism out of engagement with the gears of the driving-wheels, substantially in manner and for the purpose as specified.

No. 22,084.—JAMES S. MARSH, of Lewisburg, Pa.—*Improvement in Harvesters*.—Patent dated November 16, 1858.—This invention consists in the arrangement of the bent lever *J* and the arm *H* of the caster wheel, when the lever is pivoted behind and the arm *H* is



pivoted before the axle of the driving-wheel, and the two are connected by the link *h* for the purpose of giving a greater motion to the cutter-bar, with the usual range of the elevating lever, in making the angular adjustment of the finger-bar, as seen in the engravings, in which  $G^1$  is the bed plate.

*Claim.*—The arrangement of the bent lever *J* and the arm *H* of the caster wheel, when said lever is pivoted behind and said arms pivoted before the axle of the driving-wheel, and the two are connected by the link *h*, substantially as and for the purposes specified.

No. 22,077.—STEPHEN HULL, of Poughkeepsie, N. Y.—*Improvement in Harvesters.*—Patent dated November 16, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim connecting the finger-bar to the machine by a hinge joint, nor do I claim connecting the finger-bar to the machine by the double rule joint, nor with the double-jointed coupling.

But I *claim* connecting the inside shoe *b* to which the finger-bar is fastened directly to the main frame, or to one or both the end bars of the main frame by means of circular bearings at each end of the shoe, without any coupling piece, in combination with a small wheel hinged to the inside shoe, substantially as represented and for the purposes set forth.

Second. I claim the notches, holes, or slots in the shoe and flanges near the bearings or joints on which the shoe turns in connexion with the movable catches or bolts that work in them to keep the finger-bar in its proper place or from rising or falling too much over uneven ground, in combination with a jointed shoe constructed substantially as represented and for the purposes set forth.

Third. I do not claim simply attaching a wheel of any kind to the inside shoe; but I claim the arrangement of the small wheel *b* with the jointed frame or bar *i*, hinged to the inside shoe, by which the wheel is allowed to remain in the same position when the finger-bar is turned up to go from place to place, as it is when the machine is cutting grass and the finger-bar rising and falling over uneven ground.

No. 22,163.—NICHOLAS CLUTE, of Dunnsville, N. Y.—*Improvement in Harvesters.*—Patent dated November 30, 1858.—The nature of these improvements consists in constructing and arranging the several parts so as to make the rakes pass over and around the reel, and in arranging a pulley under the chain that carries the rakes so as to tip or vibrate them at a proper time to let the grain fall freely.

The inventor says: I *claim* the construction and arrangement of the several parts, as described, for the purpose of allowing the ends of the rakes to pass over and around the reel, in the manner and for the purpose specified.

I claim the pulley  $O^2$  when arranged to tip or vibrate the rake teeth at the top of the inclined plane, as described, and release the grain and straw and let it fall into the trough or box, substantially as specified.



No. 22,203.—WILLIAM SCHNEBLY and THOMAS SCHNEBLY, of Hackensack, N. J.—*Improvement in Harvesters*.—Patent dated November 30, 1858.—This invention consists in the novel means employed for operating or driving the sickle, whereby the same may be readily checked or stopped when desired.

It further consists in a novel application of the sickle to the machine, whereby the sickle may be raised and lowered and retained at any desired height from the surface of the ground, and also rendered capable of being adjusted on the machine so as to allow the latter, when not in operation, to be moved from place to place.

The inventors say: We *claim*—

1st. The arrangement and combination of the pendulous lever E and slide G with the scalloped wheel B, as and for the purposes shown and described.

2d. Securing the frame J, to which the finger-bar is attached, to the main frame by means of the universal joint L and the bar *k*, fitted on the guide *l* on the main frame, or an equivalent arrangement, so that the sickle may rise and fall bodily to conform to the inequalities of the surface of the ground, and at the same time be rendered capable of being placed directly over the main frame to facilitate the transportation of the machine, substantially as described.

No. 22,237.—HENRY OPP, of Belleville, Illinois.—*Improvement in Harvesters*.—Patent dated December 7, 1858.—A is the frame of the machine, which is formed of two parallel beams or bars *a b*, placed at a suitable distance apart, and connected at their back ends by a traverse bar *c*. In the bar *a* a wheel B is placed, and a wheel C is placed in the bar *b*.

In using this machine, as it is drawn along, the sickle H is operated from the axle *j* of the wheel B by means of the gearing and crank wheel; and the cut grain, by the aid of the reel M, falls as it is cut on the plate *c*<sup>1</sup> and bar J, the heads of the grain resting on plate *c*<sup>1</sup>.

*Claim*.—The employment of the plate *c*<sup>1</sup>, operated as described, in combination with the bar J, or its equivalent, attached to the finger-bar G; the whole being constructed and arranged as and for the purpose set forth.

No. 22,312.—OREN STODDARD, of Busti, N. Y.—*Improvement in Harvesters*.—Patent dated December 14, 1858.—This invention consists in the use of conical rollers attached to the finger-bar, and used in connexion with a sickle bar, having an oblique back, and also used in connexion with a cap plate; the whole being arranged so that the points or front parts of the sickle teeth are made by the action of the grass or grain being cut, or by the resistance offered by the grass or grain to the forward movement of the machine, to bind or bear snugly on the front part of the fingers, and thereby add to the efficiency of the cutting device.

*Claim*.—The conical rollers G G, two or more attached to the finger-bar *c*, in connexion with the sickle-bar *b*, provided with an inclined back, and the cap plate H, or its equivalent; the whole being arranged to operate substantially as and for the purpose set forth.



No. 22,345.—CHESTER BULLOCK, of Jamestown, New York.—*Improvement in Harvesters*.—Patent dated December 21, 1858.—The cutter represented in the engravings has a curved cutting edge *a a* on each side, the stalk of the grain being cut by the motions of this cutter when the stalk lies between the edge *a* of the vibrating cutter and the edge *b* of the stationary or rigid cutter. This vibrating cutter is connected to the vibrating bar *c* by a pin *e* at the back end of the cutter, which fits into a hole *d* in the vibrating bar, and to the finger of the cutter-bar by the end *f* of the cutter fitting into a recess at the base of the finger.

*Claim*.—Attaching the vibrating cutter to the vibrating bar and fingers, as described.

No. 22,341.—J. A. BARRINGTON, of Fredericktown, Ohio.—*Improvement in Harvesters*.—Patent dated December 21, 1858.—This invention refers to the manner of collecting the cut grain and delivering it in gavels in rear of the machine. Its nature consists in a peculiar combination of devices by which the raking attachment described in the patent of the above named inventor, dated June 8, 1858, is operated.

The inventor says: I *claim* the combination of the bell crank *C*<sup>1</sup> and guide piece *G* with the crane *C*, rod *r* connecting the crank arm *h* with the rakes, and the crank shaft *S* giving motion to the system, the operation being substantially as described.

I also claim connecting the entire raking mechanism with the vibrating frame *F*, substantially as and for the purpose set forth.

No. 22,074.—WILLIAM GREY, of Nicholasville, Ohio.—*Improved Binding Attachment to Harvesters*.—Patent dated November 16, 1858.—The engravings represent a machine embodying the improvements claimed, and adapted for attachment to a self-raking harvester similar to that patented to Jearum Atkins, December 21, 1852, and consisting in means for the automatic binding of grain with a portion of its own straw.

The inventor says: I *claim*, first, the arrangement of gravitating platform *F* 19, and series of levers *G H I J*, with their accessories, in the described connexion with a drive-wheel for the automatic starting of the binding mechanism by the weight of the sheaf or gavel, substantially as set forth.

Second. In this connexion the talons 16, 17, 18, 16<sup>1</sup>, 17<sup>1</sup>, 18<sup>1</sup>, constructed and operating substantially as set forth.

Third. In combination with the talons, or their equivalents, the crane *I I I* and its accessories, having the described compound movement, substantially as and for the purpose set forth.

Fourth. In the described combination with the talons, or their equivalent, the plyers *I I*, constructed and operating substantially as set forth.

Fifth. The rod *c*, “looper” *s*, and “tucker-in” *t*, constructed, operated, and operating together substantially as set forth.



No. 20,215.—GEORGE NOTMAN, of Deerfield, Ohio.—*Improved Binding Device for Harvesters*.—Patent dated May 11, 1858.—This invention consists in the employment of an intermittingly moving apron E, grain receptacle F, certain mechanism for twisting the bands around the grain in the receptacle, and a discharging device; the whole being attached to the machine, and arranged so that the grain, as fast as it is cut by the machine, may be gathered into gavels of requisite size, firmly bound, and discharged upon the ground.

*Claim*.—The grain box or receptacle F, revolving fork  $a^1$ , sliding fork  $m^1$ , rod  $g^1$ , slide-bar H, and sliding bottom I, arranged to operate as herein described, and used in connexion with any proper raking or conveying device, whereby the grain, as it is cut, is bound and discharged in sheaves from the machine.

No. 19,221.—L. C. WILDER, of Lexington, N. C.—*Improvement in Corn-Harvesters*.—Patent dated January 26, 1858.—This invention consists in the employment of flanged reciprocating cutters V and feed-rollers L L, in combination with a tilting platform or stalk receiver H, the parts being operated and arranged relatively to each other.

*Claim*.—Combination of the oblique reciprocating flanged cutters V V, feed-rollers L L, and cutting platform H, arranged to operate substantially as and for the purpose set forth.

No. 19,716.—THOMAS A. RISHER, of Circleville, Ohio.—*Improvement in Corn Harvesters*.—Patent dated March 23, 1858.—The corn is gathered into the cutters by the arms  $c c c c$ , is cut by the knives  $a a$ , and falls back upon the endless belt, and against the guide  $i$ . The corn being carried upon the endless belt, and the concave shocker I being directly under the upper end of the belt, it falls into the shocker from the belt, the machine is then stopped, and the clamp lever J brought in the position in figure 2. By means of this lever the corn may be bound as the head of the shock is compressed.

*Claim*.—The arrangement of the concave shocker I, clamp lever J, and rest  $k$ , with relation to cutters  $a a$ , inclined arms  $c c c c$ , belt H, and guide  $i$ ; the whole being constructed and operated in the manner and for the purpose set forth.

No. 19,822.—ISAAC V. ADAIR, of Varick, N. Y.—*Improvement in Corn-Harvesters*.—Patent dated April 6, 1858.—This invention consists in the employment of two scythe-shaped cutters, operated in a peculiar way, and working over stationary cutters, and used in connexion with a discharging device, whereby the standing stalks, as the machine is drawn along, are cut at a proper distance from the surface of the ground, gathered and thrown upon the platform, collected into compact form, and, after being bound by an attendant, discharged from said platform upon the ground.

The inventor says: I do not claim the cutters F, operating as shown, so as to effect, in connexion with the stationary cutters E, the desired result, irrespective of the peculiar arrangement and means employed for operating the cutters F; for such cutting device has been previously used.



But I *claim* attaching the cutters F to the rods *a b*, the rods *b* being provided with arms *k*, and the rods and arms operated from the wheels B, through the medium of the gearing *G i f g* and arms *c*, when the above parts are used in combination with the stationary cutters E, at the inner parts of the recesses D, for the purpose set forth.

I further claim the bar H, provided with the arms *q*, in combination with the gate I, the above parts being attached to the platform A, and used in connexion with a railing or guard, so as to operate as and for the purpose set forth.

I also claim the cutting device formed of the cutters E F, connected with rakes or teeth *k*, arranged to operate as shown, in combination with the discharging device formed of the gate I and bar H; the whole operating as and for the purpose specified.

No. 20,067.—ADAM HUMBERGER, of Somerset, Ohio.—*Improvement in Corn-Harvesters*.—Patent dated April 27, 1858.—This invention consists of a corn-carrier, provided with pulleys and friction rollers for tightening a rope in binding the corn, and having an arrangement for interlocking the pulleys with the travelling wheels at pleasure.

*Claim*.—The described corn carrier and shucker, provided with pulleys C, interlocking at pleasure with wheels B, in connexion with the rope S, said pulleys being operated by lever E and rods *e*, for binding and shucking corn; the whole being constructed, arranged, and operated substantially as set forth.

No. 20,645.—DARIUS LANDON, of Wyandotte, Ohio.—*Improvement in Corn-Harvesters*.—Patent dated June 22, 1858.—The claims and engravings will explain the nature of this invention.

*Claim*.—The platforms F and G, in combination with the endless belts V<sup>2</sup> and shock-supporters P P<sup>1</sup>, for carrying the shocks of corn through the machine, and leaving the same in a standing position on the ground.

No. 20,628.—R. B. CORBIN and JAMES MORRIS, of St. Augustine, Illinois.—*Improvement in Corn-Huskers*.—Patent dated June 22, 1858.—This invention consists in attaching to one side of an ordinary box wagon a box having a rake F at its front end, and an inclined trough G connected with it and the wagon body A, the parts being so constructed that as the wagon is drawn along the rake will strip the ears from the stalks, the ears passing into the box, from which they are raked up the inclined plane into the wagon by an attendant.

*Claim*.—The rake teeth F and box E, attached to the body A of the wagon, as shown, and made to communicate with said body A by means of the inclined trough or plane G; the whole being arranged as and for the purpose set forth.

No. 21,031.—ALBERT STODDARD, of Tecumseh, Michigan.—*Improvement in Corn-Harvesters*.—Patent dated July 27, 1858.—This machine is supported by wheels B and C, their axles 6 being attached to the main frame A by their boxes Y at the numeral 7. When it is drawn



on the ground, the wheel B gives simultaneous movement to the master wheel F; that, in turn, gives rotary motion to the pinion E, shaft G, and pinion H; that, in turn, gives rotary motion to the cog-wheel I, saw J, shaft K, and reel L; the wheel B gives simultaneous movement also to band-wheel X; that, in turn, gives simultaneous movement to the pulleys *u*, their shafts *v*, and endless belts T T T, by means of the endless belt W, which passes around the band-wheel and one of the pulleys.

The inventor says: I do not claim being the first inventor of a corn-harvester.

Nor do I claim the parts of my machine separately.

But I *claim* the combination with the main frame A of the pinion E, shaft G, pinion H, cog-wheel I, saw J, shaft K, reel L, guard P, wheel *x*, belt W, shafts V V, their pulleys *u u u u u u*, endless belts T T T, hopper Z, its pivot &, slide 4, bar 3, and caps 5, when these several parts are arranged as and for the purposes set forth.

No. 21,516.—ISAAC REAMER and HENRY MILLER, of Conrad's Store, Virginia.—*Improvement in Corn-Harvesters*.—Patent dated September 14, 1858.—The nature of this invention consists in arranging the diagonally set knife on springs and with its cutting edge slightly elevated above its rear edge. It also consists in the employment of an auxiliary adjustable reel, in combination with the main reel, when said auxiliary reel has its blades, or arms, made broad and convex, and with a sufficient spiral twist to draw the cornstalks into the cart as fast as cut down, and each of said arms has a spring arranged on its convex side to facilitate and insure the falling of the stalks on to the platform.

The inventor says: I *claim*, 1st, arranging the knife E on springs F, and with its cutting edge slightly elevated above its rear edges, substantially as and for the purposes set forth.

2d. The employment of an auxiliary adjustable reel N, in combination with the main reel M, when the whole is constructed, arranged, and operated as and for the purposes described.

No. 22,259.—BRONSON MURRAY, of Ottawa, and JOHN VAN DOREN, of Farm Ridge, Illinois.—*Improvement in Corn-Harvesters*.—Patent dated December 7, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We *claim*, first, in combination with the inclined knife or cutter A, the curved guides or arms *d d* for bending over, and thus facilitating the cutting, substantially as described.

We also claim, in combination with the stationary cutter A, the reciprocating cutter B, when operating together substantially in the manner and for the purpose set forth.

We also claim, in combination with the cutting and guiding or directing apparatus for severing and dropping the stalks, the shovers E E, for moving them rearward, as described.

We also claim the arranging of the conveying apron P upon removable supports F F, and so inclining it that it will convey the stalks



over or past the opening J behind it when used, but leave a delivery at J when removed, substantially as set forth.

No. 20,066.—MILES HOSFORD and J. C. AVERY, of Macon, Miss.—*Improvement in Cotton-Harvesters*.—Patent dated April 27, 1858.—This invention consists in applying a system of gearing to an endless chain of pickers, which are fitted in a suitable frame or case, and so arranged that, as the frame or case is moved, and the pickers thereby adjusted to the bolls, the movement of said case will, through the medium of the gearing aforesaid, wind up a spring which serves as a reverse power to operate the endless chain of pickers when the frame is stationary and the pickers properly adjusted to the bolls, so that the cotton will be picked therefrom and deposited in a proper receptacle or bag attached to the machine.

The inventors say: We do not claim an endless belt of pickers placed within a case or frame, and so arranged that it may detach the cotton from the bolls; for such device has been previously used.

But we *claim* operating the endless chain of pickers B, through the medium of the pulley D, spring F, wheel G, ratchets H I, with pawls *k k*, and the gearing *k k<sup>1</sup> k<sup>2</sup>*, *j*, and L L<sup>1</sup>, or any equivalent device, whereby a reserve power is obtained as the implement is moved from boll to boll, so that the cotton may be picked or gathered therefrom as the implement is adjusted to the bolls.

No. 19,360.—JOHN GORE, of Fredonia, N. Y.—*Improvement in Cutters for Harvesters*.—Patent dated February 16, 1858.—In fig. 2 the finger D is made in the ordinary way, and placed on the top of it is a steel cutter which is let into a bevelled rabbet F on the front edge of the cutting-bar A, to prevent the back end of the cutter E from rising; the front end is let into the finger D in like manner, forming a *dovetail*; and a screw G let partly into the fore end of the side cutter E, and partly into the shoulder of the finger D, prevents its sliding out of the dovetail, and holds the cutter E firmly in its position.

*Claim*.—The cutters H, as constructed with the conical truncated pivot near its end, and oblong aperture near its centre, for the purpose set forth, in combination with the cutter E, when secured on bar A and fingers D, by dovetails and set-screw, as described, and for the purpose specified.

No. 21,499.—CHARLES HOWELL, of Cleveland, Ohio.—*Improvement in Cutting Apparatus for Harvesters*.—Patent dated September 14, 1858.—This invention relates to the cutting apparatus of reaping and mowing machines, and consists in so forming its constituent parts, and arranging them in relation to each other, as greatly to facilitate the operation of cutting when working in tangled grain or grass; and also to prevent the lodgment and deposition of such fibrous substances as would impede and prevent the free and easy play of the knife over the fingers. The improvement, by means of which the desiderata are carried into effect, consists, first, in a novel construction of the guard-fingers, and secondly, in a new mode of constructing and arranging



the sections of the knife upon which the sickle-bar is when intended to be used, with a finger constructed on the above or a similar plan.

The inventor says: Disclaiming the construction of guard-fingers, as patented by Cyril Wagner, June 24, 1856, I *claim*, first, a finger formed with a frog-shaped concavity on the underside of the knife, having outlets on its sides in front of the finger-bar, in the manner and for the purposes set forth.

Second. A sickle or knife having a series of curved openings *l*, or their equivalents, formed on its rear and under side, when used in connexion with guard-fingers provided with a D-shaped rest *K*, or its equivalent; the whole being arranged, constructed, and operating in relation to each other in the manner and for the purposes substantially as set forth.

No. 22,468.—W. A. WOOD, of Hoosic Falls, N. Y.—*Improvement in the Cutting Apparatus of Harvesters*.—Patent dated December 28, 1858.—*A* is the finger-bar, which may be a flat plate or bar of iron with its front edge *a* bevelled or cut under. The guards *B* may be cast in sections of two, three, or more guards to the section; the under portion *b* of the guards have cast upon their rear portions a shield *c*, the back edge *d* of which is bevelled or cut away the reverse of the bevelled edge of the finger-bar, and so as to make with it the inclined joint.

*Claim*.—The manner described of constructing the guards, and uniting them to the finger-bar, as set forth.

No. 19,920.—DAVIS W. ENTRIKIN and LEVIS H. DAVIS, West Chester, Pa.—*Improvement in Cutting Device for Harvesters*.—Patent dated April 13, 1858.—This invention consists in the combination of a peculiarly hollowed guard finger with a roughness of the cutter-bar for preventing clogging.

*Claim*.—In combination with the roughness upon the surface of the cutter-bar and cutters, as described, the arching of the finger, and extending it back upon the bar, the hollowing out of the finger under the cutting-bar, the whole arranged and operating as and for the purpose set forth.

No. 21,414.—C. P. GRONBERG, of Montgomery, Ill.—*Improvement in Cutting Devices for Harvesters*.—Patent dated September 7, 1858.—This invention consists in a peculiar construction and arrangement of the finger-bar and fingers, whereby the different parts may be constructed wholly of metal and still be extremely light and durable, and the sickle prevented from choking or clogging.

The inventor says: I am aware that concave fingers have been previously used, and also perforated fingers; and I am also aware that various forms of curved metal finger-bars have been employed in order to unite or combine strength and lightness.

I therefore do not claim broadly and separately any of the parts, irrespective of the construction and arrangement shown and described.

I *claim* the semi-cylindrical finger-bar *A*, concave and perforated fingers *B*, and the sickle formed of the bar *C*, and teeth *D*, when



the above named parts are constructed, combined, and arranged for joint operation, substantially as and for the purpose set forth.

No. 20,243.—LEWIS MILLER, of Canton, Ohio, Assignor to C. AULTMAN & Co. of said Canton.—*Improved Finger or Guard for Harvesters*.—Patent dated May 11, 1858.—This invention consists in forming the shoulder on the guard by welding on a piece of iron or steel, instead of making said shoulder by drawing down the bar from it, and in making said fingers of uniform shape, by levelling and truing them on a block after they are made.

The inventor says: I *claim* forming the shoulder on a wrought iron guard by welding on a piece instead of drawing down a large bar, as set forth and for the purpose described.

And I also claim the shaping, levelling and truing of the guard or finger, so as to make them of uniform shape and size by means of a block, as described and represented.

No. 19,518.—HENRY C. SMITH, of Cleveland, Ohio.—*Improvement in Harvester Fingers*.—Patent dated March 2, 1858.—The external figure of the forward part of the guard is cylindrical and cone-shaped, *b c d*, being formed of one piece of cast metal. The interior of the guard *E E*<sup>1</sup> is also cylindrical, the cavity being cone-like, the base of which terminates in the opening *F* between the bars *D*. By the peculiar form of the guard or finger the knife is protected upon its upper and under sides from all liability to become clogged or choked up with grass or stubble, and, in consequence of the cone-like interior, what little grass or straw may be drawn in is constantly worked backward and discharged through the cavity *F* between the bars *D D*.

The inventor says: I am aware that guards for the cutters of harvesters have been made with cavities of various forms, or open both above and below; but for want of strength in some of their parts, or from liability to clog, they are subject to objections which, I believe, are obviated in my improvement, (which forms a new article of manufacture,) which can be applied to any harvester of the usual form of construction.

I *claim* the bars *D D*, with the opening *F*, the cone *b c d*, with the cone cavity *E E*, so formed in relation to the bar *D D* that the under side of the cone shall project below the said bars attached to the shank *A*. This I claim when constructed and arranged substantially as set forth, for the purpose described.

No. 20,808.—JOHN P. MANNY, of Rockford, Ill.—*Improvement in Harvester Fingers*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Tapering the face of the guard-finger *B* under the sickle-bar *C*, and to the rear thereof to a point *a*, and forming a cavity under and behind said point, substantially in the manner and for the purpose described.

No. 19,319.—AARON VAN DUZER, of Goshen, N. Y.—*Improvement in Grain and Grass Harvesters*.—Patent dated February 9, 1858.—This invention relates to a new and improved device for harvesters,



and consists in having a series of cutters upon both sides of the bar A so arranged that in whatever direction the machine is drawn the grass will be cut, thus rendering the apparatus a right or left hand machine at pleasure.

*Claim.*—The arrangement of cutters and fingers upon both sides of their respective bars, whereby the grass may be cut upon either side of the finger-bar A, as and for the purposes set forth.

No. 19,938.—HENRY MARCELLUS, of Amsterdam, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated April 13, 1858.—This invention consists in having horizontal V-shaped ledges *b* at the back parts of the fingers, and having the back parts of the teeth *d*, which are underneath the cutter-bar C, and which work over the V-shaped ledges, formed obliquely at their sides, so that, as the sickle or cutter is operated the ledges, in connexion with the oblique sides of the teeth, will force outward from the back part of the sickle all cut grass or grain which might pass between the cutter-bar C and fingers B, and which would otherwise choke or clog the cutter.

*Claim.*—The V-shaped ledges *b*, secured in any proper way between the fingers B, at their back parts, in combination with the oblique sides *e*, at the back parts of the cutter teeth *d*; the parts being arranged to operate substantially as and for the purpose set forth.

No. 21,063.—ROBERT BRYSON, of Schenectady, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated August 3, 1858.—This invention relates to an improved arrangement of parts for operating or driving the sickle, whereby the proper speed is given to the sickle from the driving wheel by the employment of a very few parts, with but little friction, and capable of being so disposed as to favor, to a considerable extent, lightness of draught, with a tendency to prevent or counteract what is known as “side draught.”

The inventor says: I am aware that cams similar to D have been previously used.

And I also am aware that the double crank connexion is an old and well known device.

I do not claim, therefore, any of the parts separately, or in the abstract, irrespective of the arrangement as shown and described.

But I *claim* placing the cam D in front of the driving wheel *c*, and operating it therefrom by means of the double crank *i* and the rods *h h*, when these several parts are constructed and arranged relatively with respect to each other and to the bar E, in the manner and for the purpose set forth.

No. 22,251.—M. G. HUBBARD, of Penn Yan, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated December 7, 1858.—This improvement is intended to adapt the above named inventor's two-wheeled mowing-machine to the purposes of reaping grain on uneven surfaces, and delivering the same at the side of the swath in gavels ready for binding, and also to attain great ease in altering the machine to accomplish the different purposes of harvesting grain and grass.



The inventor says: I *claim* the attachment of the front corner of the reaping platform to the corner of the machine, by means of the hinge K, constructed and arranged substantially as and for the purposes set forth.

I also claim the elastic connexion between the reel and driving power, in combination with the flexible attachment of the outer reel arm, arranged substantially as and for the purposes described.

I also claim the employment of the self-sustaining raising lever, when constructed and arranged as and for the objects specified.

I also claim supporting a portion of the weight of the outer end of the platform, by means of the spring *m*, or its equivalent, substantially as and for the purposes described.

No. 21,533.—JOHN W. BROKAW, of Springfield, Ohio, assignor to WARDER, BROKAW & CHILD, of said Springfield.—*Improvement in Guard Fingers for Harvesters*.—Patent dated September 14, 1851.—The nature of this invention consists in forming the finger of two parts of different kinds of the same metal, so that the strength of the different metals will be brought to bear in the direction that each from its peculiar nature will be best adapted to resist, and so that the cheapest metal will form the larger or heavier part of the finger, by means of which the cost of the finger is materially reduced.

The inventor says: I do not claim broadly making the cap of harvester guard-fingers of wrought or malleable iron with a base of cast-iron.

But I *claim* the peculiar construction of the cap B, as described, when made of wrought or malleable iron, and connected to the cast-iron base A, and to the finger bar, in the manner and for the purpose set forth.

No. 20,618.—THOMAS BERRY, of Louisburg, Ky.—*Improvement in Hemp-Harvesters*.—Patent dated June 22, 1858.—This invention is designed to afford facility and convenience to the driver while sitting on his seat for quickly adjusting the cutting-bar, when necessary; also to afford like facilities for adjusting the reel to suit different heights of hemp; and likewise to provide a means whereby the hemp can be perfectly bundled and discharged automatically at intervals in gavels.

The inventor says: I *claim*, first, the combination and arrangement, in the manner specified, of the adjustable front supporting wheel *b c*, obliquely set slotted guide-plate D C, and adjusting lever F, as set forth.

Second. Arranging the reel H and the gearing which drives it on the jointed frame I J, which is pivoted to the main frame A, and connected to an adjusting lever J, substantially as and for the purposes set forth.

Third. The combination of transverse bundling bars N N<sup>1</sup>, one stationary and the other pivoted, so as to vibrate up and down with the main propelling axle B<sup>1</sup>, by means of a pin P on the axle B<sup>1</sup>, a



pivoted lever O, a spring rocking arm *ll*, and connecting link *k*, substantially and for the purposes set forth.

No. 21,840.—C. B. MATTHEWS, of Oquawka, Ill.—*Improvement in Maize-Harvesters*.—Patent dated October 19, 1858.—This invention consists in the use of a rotary and stationary cutter, sliding bed and revolving arms, all attached to a suitable platform, mounted on wheels, and arranged so that as the machine is drawn along standing corn may be cut and deposited in gavels on the ground with great facility.

The inventor says: I am aware that saws and stationary cutters have been previously used for harvesting corn or maize, and I am also aware that arms have been used to gather the cut stalks, and eject them from the machine, as shown, for instance, in the harvesters of J. V. Adair, patented April 6, 1858. I do not claim, therefore, the circular saw K nor the stationary cutters M M; nor do I claim separately, and irrespective of arrangement, arms for throwing the stalks on the platform.

But I *claim* the saw K and stationary cutters M M, in combination with the revolving arms *l* attached to shafts N N, when the several parts are arranged to operate as and for the purpose set forth.

I also claim, in combination with the above, the sliding bars or slats *b*, connected with the lever F, and arranged with the opening E in the platform A, as and for the purpose described.

No. 19,019 —SAMUEL COMFORT, JR., of Morrisville, Pa.—*Improvement in Rakes for Harvesters*.—Patent dated January 5, 1858.—The claim and engravings show the nature of this invention.

*Claim*.—1st. Imparting to the rake the required movement along the platform and parallel or thereabouts with the same, by means of the sliding frame E and slotted bracket *i*, in combination with the lever K, arm M, and segments *m* and *n*, when arranged in relation to each other, as shown, and for the purpose specified.

2d. Producing the lateral reciprocating, combined with the lifting, movement of the rake and its appendages, by means of the connected radial arms G and G<sup>1</sup>, as actuated by the crank D and rod F.

No. 19,523.—ISAAC VAN DOREN, of Somerville, N. J.—*Improvement in Rakes for Harvesters*.—Patent dated March 2, 1858.—The nature of this invention consists in so constructing a rake in combination with the platform supporting it and for attachment to harvesters that the rake shall have and receive all necessary motion from the supporting wheel of the platform and without any connexion with the driving wheel, or the other parts of the machine, the rake thus being wholly independent and self-acting.

The inventor says: I *claim* the arrangement or combination of the geared wheel D, having spur and face gearing, as described, and shaft H, with its pinions F F<sup>1</sup> J, in connexion with the supporting roller B and expanding levers M, substantially as described, for the purpose of operating the rake N by the roller B.

I also claim, in connexion with the rake N, when operated as described by means of expanding levers M, the trips K K, for the



purpose of throwing the teeth in a vertical position to carry the grain from the platform.

No. 21,540.—ALLEN SHERWOOD, of Auburn, N. Y., assignor to E. P. SENTER, ALBERT GOSS, and DANIEL WOODWORTH.—*Improved Raking and Binding Apparatus for Harvesters*.—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the traversing the double rake made to rock in its supports, to bring its fingers into and out of action, and automatically fastened and released, substantially in the manner described, and for the purposes set forth.

I also claim, in combination with the fingers *t*, for throwing the gathered gavel up into the concave, the arm *u*, for carrying the binding wire up and over the sheaf, and placing the wire in the slot of the twisting wheel, substantially as described.

I also claim, in combination with the twisting wheel, the sliding knife for cutting off the wire, substantially as described.

I also claim, in combination with the cutter-bar and its stud, the cam 10, for the purpose of causing the cutter to act regardless of the direction in which the shaft that carries the cam turns, substantially as described.

I also claim, in combination with the wire carrier and guides *y y*, a twisting wheel, made and operated substantially as described.

I also claim forming a knot or enlargement on the end of the wire, behind where it is cut off by the cutter, by twisting that portion of it by the means substantially as described, said twist preventing the end from being drawn through the slot of the twisting wheel, as set forth.

No. 20,805.—JOHN P. MANY, of Rockford, Ill.—*Improvement in Raking and Binding Attachment to Harvesters*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, in combination with a reaping-machine, a rake that automatically throws itself out of gear when it arrives at the outer or grain end of the platform, in the manner substantially as described.

I also claim combining with a rake that automatically throws itself out of gear, and a gathering apparatus, a mechanism by which the driver from his seat, or the attendant at his stand on the machine, can throw said rake into action when desired, for the purpose and in the manner substantially as described.

I also claim, in combination with a rake, and the gathering apparatus to form the gavel the bent arm *P*, provided with the points *v*, for the purpose of holding one end of the band that is to fasten the gavel when gathered, substantially in the manner and for the purpose described.

I also claim the bent lever *n*<sup>1</sup>, with its forked head, which, when operated as above described, shall carry the band between its prongs, and which, when released, shall be driven back by the spring *n*, releasing the band, the hook of which shall then be driven into the band



by the expansion of the gavel, substantially in the manner and for the purpose described.

I also claim operating the lever  $w^1$  by means of the coiled spring  $u$ , for the purpose of adjusting the motion of said lever, so as to bind large and small bundles equally tight, substantially in the manner and for the purpose described.

No. 19,212.—ALLEN SHERWOOD, of Auburn, N. Y.—*Improved Raking and Binding Devices for Harvesters*.—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Bending the grain by means of the wire  $Y$  placed on a spool or pulley  $J$ , and carried partially around the grain by the hooks  $g$  of the arm  $M$ , the hooked arm being used in connexion with the stationary fork  $n$  and the rotating forks  $m m^1$  and cutter  $l$ , said parts being arranged to operate in relation to each other as shown and described.

No. 20,119.—W. A. WOOD, of Hoosick Falls, N. Y.—*Improvement in Raking and Delivering Attachment to Harvesters*.—Patent dated April 27, 1858.—This invention consists in giving to a rake, which works entirely above the platform, its reciprocating and rising and falling motion by means of a single travelling endless belt or chain, and in combining with an automatic rake, which draws and deposits the cut grain at the end of the platform, a delivering apparatus which is operated by the machine whenever the conductor desires it, and when sufficient has gathered to form a gavel.

The inventor says: I *claim*, first, giving the rake its reciprocating and rising and falling motions by means of a single travelling belt or chain, without any other appliances, and substantially in the manner described.

I also claim, in combination with a uniformly moving automatic rake, a delivering apparatus, which is set in motion by the conductor, and butts off the gavel, and returns for the next succeeding similar operation, substantially as described.

No. 19,085.—JAMES L. FOUNTAIN, of Rockford, Illinois.—*Improved Raking Attachment for Harvesters*.—Patent dated January 12, 1858.—In operating this machine, by giving motion to the driving wheel  $D$ , the cam shaft  $P$  is caused by the bevel gearing  $T U$  to revolve from left to right; the relative lengths of the crank arms  $O$  and  $H$  are so adjusted that one revolution of  $O$  shall cause the arm  $H$  to move only in the segment of a circle and return, which segment shall correspond to the size of the platform  $A$  over which the rake is moved. The motion thus communicated to the crank arm  $H$  is transferred directly to the rake, through the shaft  $g$  and rake arm  $k$ , and at each half revolution of the shaft  $P$  the rake moves from one side of the platform to the other.

*Claim*.—I claim the automatic attachments as described, consisting of the double cam wheel  $E$ , vibrating lever  $f$ , crooked arm  $i$ , and loop  $l$ , in combination with the cranks  $O$  and  $H$ , pitman  $G$ , and bent rock-



shaft *g*; the whole constructed and arranged as and for the purpose set forth.

No. 19,378.—JAMES W. PATTERSON, of Philadelphia, Pa.—*Raking Attachment for Harvesters*.—Patent dated February 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The combination of the elevated or counter platform B, which receives the grain and from which the rake *d* receives and deposits it, with the rake as arranged, viz: with the wheel P on which the outer end of the rake rides, the inclined plane or hinge-rail O, the weight or ball N, and the chain C, substantially as set forth and described.

No. 19,393.—JACOB V. A. WEMPLE and ANDREW WEMPLE, of Chicago, Illinois.—*Improvement in Raking Attachment for Harvesters*.—Patent dated February 16, 1858.—The nature of this invention consists in attaching the rake A to any harvester in such a manner that the rake is made to pass over the platform of the harvester from the sickle D to the rear of the platform and remove the grain therefrom, then in causing the rake to be elevated from the platform sufficiently to be clear from the grain and carried forward to a point nearly above the sickle, where it is made to descend upon the platform.

The inventors say: We do not claim, broadly, giving the rake the movements specified when they are effected by two distinct operations, as devices operating in such manner are already patented.

But we *claim* the peculiarly-formed double crank arm B, connected at opposite extremities with the rake and pitman, and journaled in a swivel box C, substantially as described, in combination with the double-jointed pitman G, and the studs *b* and *c* on the box C, arranged and operating substantially as described.

No. 20,061.—GEORGE V. GRIFFITH, of Sandusky, Ohio.—*Improved Raking Attachment for Harvesters*.—Patent dated April 27, 1858.—This invention consists in the employment of a revolving and an intermittingly reciprocating rake, so placed relatively with each other that the planes of their movement are at right angles with each other, and so operated that the revolving rake is made to carry the cut grain from the front of the platform near the sickle to the reciprocating rake near the back part of the platform, which rake, in consequence of its intermittent movement, discharges the grain in proper gavels upon the ground.

The inventor says: I do not *claim* separately any of the parts described, for I am aware that reciprocating and rotating rakes have been previously used; but I am not aware that a reciprocating and rotating rake combined and operated as shown have been used.

I claim the rotating rake F and the reciprocating rake P, combined and arranged to operate conjointly as and for the purpose set forth.

I also claim the particular manner of operating respectively the rakes F P, as described, to wit: through the medium of the grooves or guides



G G, gearing I J, which connect the two shafts C K and the crank *k* on shaft K.

No. 21,552.—PETER S. CRAWFORD, of Marengo, Ill.—*Improvement in Raking Attachment for Harvesters*.—Patent dated September 21, 1858.—This invention consists in the means employed for operating two rakes, whereby the grain as it is cut is raked from the platform of the reaper and discharged in gavels on the ground at suitable points by a very economical mechanism which may be readily applied and made to work efficiently.

The inventor says: I do not claim, broadly, or irrespective of the arrangement shown, a rake or system of rakes arranged or operated so that one will sweep over the platform and rake a gavel into the other rake, the latter assisting in discharging the gavel from the platform, for such device has been used, and the plan carried out in various ways.

But I *claim* the combination of the rakes O P, the former being attached to the box I, and the latter operated through the medium of the gearing H J K, placed within the box I, and the bars L M, and arm N; the whole being arranged as and for the purpose set forth.

I further claim the supplemental or discharging rake Q, placed over the rake P, and used in connexion with the springs *i* of rake P, substantially as described.

No. 19,958.—OREN STODDARD, of Busti, N. Y.—*Improvement in Raking Attachment to Harvesters*.—Patent dated April 13, 1858.—This invention consists, firstly, in a novel raking device so constructed and arranged that the cut grain, in consequence of its gravity, is made to actuate the rake and be the means of causing it to be raked off the platform, at proper intervals, to form the gavels or sheaves of uniform size. Secondly, there is a peculiar arrangement of the cutting device, whereby the same is made to operate with a comparatively small amount of friction. Thirdly, there is a registering device connected with the raking device, and so arranged as to number the gavels or sheaves as they are raked from the platform.

The inventor says: I *claim*, first, the balance frame F, or its equivalent, connected with fingers or arms *g*, or other raking device, in such a manner that the cut grain by its own gravity, in connexion with the weight or counterpoise K of the frame F, will be made to actuate the raking device so that the gavels will be discharged from the frame of equal weight, however variable the crop being cut may be.

Second. The peculiar arrangement of the balance frame F, shaft D, with clutch *d*, attached pulleys *e e* on shaft D, cords *b*, fingers or arms *g g*, and bar H, substantially as and for the purpose set forth.

Third. The registering device formed of the dial *m*<sup>1</sup> and index *l*, operated automatically from the raking device, substantially as and for the purposes set forth.

No. 20,378.—J. A. ST. JOHN, of Janesville, Wis.—*Improvement in Raking Attachment to Harvesters*.—Patent dated May 25, 1858.—This invention consists of a double vibrating rake, so arranged as to



traverse over the platform of the harvester, and open and close at the desired points, so that the cut grain will be raked from the platform and deposited in proper gavels upon the ground.

*Claim.*—The particular means employed for operating the rakes, viz: the reciprocating slide I, arm J, crank K, shaft M, with the rakes attached, in connexion with the lever *h*, pinion N, and segment O; the whole being arranged as shown and described.

No. 20,411.—D. O. DE WOLF, of New York, N. Y.—*Improvement in Raking Attachment to Harvesters.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not broadly claim imparting a circular or longitudinal motion to a rake by means of a cam, irrespective of the form of the cam.

Nor do I broadly claim elevating or depressing a rake by means of cams either attached to the rake or separate from the rake, irrespective of the devices employed by me, as fully shown and described.

But I *claim*, first, the employment of a cam K of the form described, in combination with the devices employed for operating or stopping the motion of the rake at the will of the driver, for the purpose of imparting a variable reciprocating motion to the rake N during the entire length of the platform D, in a line at right angles to the course of the machine, as specified.

Second. Elevating and depressing the rake, in the manner and by the devices shown, and for the purposes described.

Third. The rake, as described, with the inclined rod *z* and the weight *a*, combined and operating together, as described, and for the purposes as set forth.

No. 20,475.—JOHN A. BARRINGTON, of Frederickstown, Ohio.—*Improvement in Raking Attachment to Harvesters.*—Patent dated June 8, 1858.—The nature of this invention consists in a peculiar combination of devices for grasping the gavel, conveying it to the rear of the machine, and discharging it perpendicular to the track of the machine. The grasping mechanism consists of two rakes *f f*, each suspended by a pin *a* from a slide piece *b*, movable longitudinally in the arm of a crane by a cord connexion C with a pulley *d* at one extremity. The rakes *f f* are moved upon their suspending pins by the groove *g*, in which a stud *v* on the rake arm moves.

The inventor says: I *claim* the reciprocating or vertically moving rack piece R, operating substantially as described, in combination with the shaft B, having an intermittent connexion with the crane and the rakes *f f*<sup>1</sup>, operated from the rotation of the shaft, arranged and operating substantially as and for the purposes specified.

I also claim the combination of rakes *f f*<sup>1</sup>, slides *b*, to which they are hung, and the grooves *g* of the crane arm, substantially as and for the purposes set forth.

No. 21,437.—JOHN NELSON, of Rockford, Ill.—*Improvement in Raking Attachments to Harvesters.*—Patent dated September 7, 1858.—The short end L of the rake handle has a strong cord N fastened to



it, the opposite end of said cord being attached to the spring O to allow the cord to be drawn taut without breaking; the spring yielding a little to allow the arm I to pass the dead centre. The rake head M is thus thrown backward, entirely clear of the standing or falling grain. The direction of the rake head is indicated by the dotted lines seen at P P<sup>1</sup>.

*Claim.*—The arrangement of the arm I and rake connected by an articulating joint at J, the spring O and cord N, in combination with the guide Q, operating conjointly in the manner and for the purpose set forth.

No. 21,847.—ADAM R. REESE, of Phillipsburgh, Pa.—*Improved Raking Attachment to Harvesters.*—Patent dated October 19, 1858.—The operation of this machine is as follows: The revolution of the shaft F causes the crank E to elevate the toothed end of the rake K by means of the slotted link bar J attached to the oscillating box. The arm C then moves the rake, while so elevated, across the platform, over and above the grain. As the teeth of the rake come vertically over the far side, the slotted link J permits the rake to drop on the grain where it rests, while the arm C draws the rake across the platform, carrying the grain with it.

*Claim.*—The combination of the vibrating arm C, the rake K, the link piece J, and the crank F, when the several parts are constructed, arranged, and operated substantially as described.

No. 21,940.—W. W. BURSON, of Yates City, Illinois.—*Improvement in Raking Attachment to Harvesters.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the transverse hinging of frame F<sup>1</sup> as described, for elevating the rake as it moves to the rear.

Second. Adjusting the rake in its position for starting by the gravity of the gear portion of the raking mechanism, combined with the transverse hanging of the frame F<sup>1</sup>, the operation being substantially as described.

Third. The combination of the tilting platform P<sup>1</sup>, stubble leveler P<sup>2</sup>, and glancing board R<sup>1</sup>, with the rake for collecting and delivering the cut product, as specified.

Fourth. The combination of shaft S, cam wheel W, spring l, and slotted step h, substantially as and for the purposes set forth.

No. 22,326.—JOSEPH YOUNG, of Marshallton, Pennsylvania.—*Improvement in Raking Attachments to Harvesters.*—Patent dated December 14, 1858.—This invention relates to a peculiar means employed for operating a rake, whereby the grain is raked in gavels from the platform and discharged from the platform longitudinally with the plane of the movement of the harvester to which the improvement is attached.

*Claim.*—The arrangement of the rake bar H, shaft G, rod j, provided with friction roller l, jointed connecting rods F N attached to crank pulley e, inclined adjustable plate K, spring p, and nut M, substantially for the purpose set forth.



No. 20,807.—JOHN P. MANNY, of Rockford, Illinois.—*Improvement in Track Clearers for Harvesters*.—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—A wing board or track clearer C D, which is hinged to the divider at *a*, and composed of two or more parts, which are hinged together, and which may be adjusted together or independently of each other, substantially in the manner and for the purpose set forth.

No. 22,368.—OBED HUSSY, of Baltimore, Maryland.—*Improved method of gathering grain upon and discharging it from the platform of Harvesters*.—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the method described of gathering grain upon and raking it from the platform of a reaping machine, and depositing it upon the ground by a raker riding on the machine directly behind the horses, and the gearing facing obliquely towards the grain which the machine is advancing to cut, and who, at a single operation with his rake, first, presses the grain in front of the machine backward against the cutter and over upon the platform; secondly, by a pivotal motion turns the prostrate grain upon the platform with its stalks parallel to the cutter; thirdly, slides the grain endwise off the platform at the side of the machine; and fourthly, deposits the grain in a gavel on the ground behind his seat and across the track of the driving wheel of the machine as set forth.

No. 20,515.—WILLIAM H. SEYMOUR and DAYTON S. MORGAN, of Brookport, N. Y.—*Improvement in Harvesting Machines*.—Patent dated June 8, 1858.—The nature of this invention will be understood by reference to the claim and engravings

The inventors say: We are aware that various modes of changing the gear and the velocity of the cutter have been used in which the adjustments are arbitrarily made, but these require skill and care on the part of the persons employed. These we do not claim.

But we *claim*, first, the combination of the changeable pinions P  $p^5$  and gear wheel D actuating the cutters of reaping and mowing machines with their centres so situated relatively that the changeable parts shall always exactly fit and gear when properly placed and not otherwise, the whole being arranged and operating substantially as set forth.

Second. The combination of the replaceable pinions with the series of holes for the axle of the driving wheel of reaping and mowing machines, so arranged with relation to each other that while the rate of motion of the cutter is changed, the height of the cutter from the ground may be varied at the same time, the proper rate of motion for the different heights being always secured, and in such manner that the changeable parts shall always fit and gear when properly placed and not otherwise.

No. 21,343.—HENRY G. KAUFMAN, of St. Louis, Missouri.—*Improvement in Harvesting Machines*.—Patent dated August 31, 1858.—The



object of this invention is to so construct a harvesting machine as to cause it to gather the straw whole with the head on it in the ordinary way, or to gather the grain by first cutting the head off of the straw, and immediately thereafter cut the straw from the ground, both operations to be performed by the same combination of devices and at the same time, or as nearly at the same time as possible, the first operation preceding the second not more than an instant. And also in providing a more efficient means for guiding the machine and for raising and lowering the knives so as to cut the stubble any required height.

The inventor says: I *claim* first, the described arrangement and combination of the wheel C, with the devices before described, viz: the levers *p* and *q*, turn table B and *m*, and the ratchet C, and standard *r*, for the purpose of operating the said wheel so as to guide the machine, and raise the knives *h h h* from the ground, substantially as set forth, for the purpose specified.

Second. The combination of the finger-plate K<sup>1</sup>, with the knife-plate M, and the knives *h h h*, when these several parts are constructed, relatively arranged, and operated in the manner and for the purpose specified.

No. 21,869.—J. F. BLACK, of Lancaster, Illinois.—*Improvement in Grain Discharging Attachment to Harvesting Machines*.—Patent dated October 26, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—Operating the gavel discharger, that is to say, the rotating arms *g* of shaft J, from the driving wheel C, through the medium of the wheel H, provided with the slot *d*, and tooth *e*, and the pinion I<sup>1</sup>, provided with a quadrilateral plate *h*, as and for the purpose shown and described.

No. 19,689.—OLONZO R. DINSMOOR, of Auburn, New Hampshire.—*Improvement in Haycock Protectors*.—Patent dated March 23, 1858.—The main part A is made of any material capable of protecting the hay from rain. At each corner it has an elastic ground connexion B. The central or middle part of the cover has a tapering pin, C, extended from it, and made of sufficient length to enable it to be driven down into the middle of the upper part of the haycock to a firm bearing.

*Claim*.—Combining with the cover elastic ground connexions, and a centre pin C, to extend into but not through the hay, the whole being arranged so as to operate with respect to the haycock, substantially described, when applied thereto.

No. 21,150.—E. M. REES, of Norristown, Pa.—*Improvement in Hay Elevators*.—Patent dated August 10, 1858.—This improvement consists in a peculiar construction of an elevating spring-rod H, bolt F, and rod D, for operating the same, and in the manner of combining these with and arranging them on the frame, the whole forming a substantial hay elevator.

The inventor says: I do not desire to claim broadly the locking of the frame to and releasing it from an elevating rod, as such a device is described and claimed in the patent granted to T. T. Jarret, May 30, 1854.



Neither do I desire to claim broadly a spring latch for releasing and retaining the frame.

But I *claim* the plate G, with its spring bolt F, and rod H, in combination with the forked rod D, with its upper end bent, as described, and its projection f, when the several parts are constructed and arranged with respect to each other and to the frame, substantially in the manner set forth.

No. 22,062.—ROBERT A. CAMPBELL, of Salem, Indiana.—*Improvement in devices for saving the seed from hay fed to stock*.—Patent dated November 16, 1858.—The nature of this invention consists in the combination of the inclined conducting passage, intermediate hay rack, and trough, having a grated or seive bottom and a sliding drawer or seed receptacle whereby the grass seed which escapes from the hay as it descends from the loft, or while being drawn through the rack is collected and sowed.

*Claim*—The combination of the inclined conducting passage F, intermediate hay rack E, and seive bottom trough B C C, substantially as and for the purposes set forth.

No. 20,241.—CHARLES E. GLADDING and JOSEPH N. GLADDING, of Troy, Pa., assignors to CHARLES E. GLADDING, of said Troy.—*Improvement in Forks for Elevating Hay*.—Patent dated May 11, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The arrangement and combination substantially as shown and described of the head B, joint C, strap c, plate d, loop E, and cord or wire F, whereby all projecting arms are dispensed with, so that the instrument when not required for hoisting purposes may be used as a common fork.

No. 19,921.—JOHN FASIG, of Jackson, Ohio.—*Improvement in Hay Knives*.—Patent dated April 13, 1858.—The knife C being thrust into the hay, the ends c c enter readily, and power being applied by placing the hand upon the handle A<sup>1</sup>, and upon the piece B, all the hay within the angle of the knife is cut, the sides of the angle preventing the hay from being pushed away by the force applied to cut it.

*Claim*.—The angular knife C, constructed substantially in the manner and for the purpose set forth, it being attached to the shank A, as described.

No. 20,772.—JOHN B. BENTON, JOHN FREDERIC BEHN and GOTTLÖB BASTIAN, of Buffalo, N. Y.—*Improvement in Machines for Raking and Loading Hay*.—Patent dated July 6, 1858.—This machine will gather the hay or grain by means of the rake teeth a a a, which are connected to the arms b by means of the rod c passing through the heads of the rake teeth a a a, the rake teeth are further secured by one end of the circular plate a being fastened to the rod c which is finally secured to the frame E by means of the brackets f.

The inventor say: We do not claim the rake.



Neither do we claim the securing of the shaft to the wagon wheels, nor the forks being attached to the shaft, as broadly considered.

But we *claim* the combination of the bands *o*, plate *d*, and forks *n*, the whole being constructed and arranged for operating conjointly as and for the purposes set forth.

No. 19,812.—JUDSON KNIGHT, of Newark, N. J., assignor to R. W. BOOTH, of Providence, R. I.—*Improvement in the Manufacture of Hoes*.—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that a wrought iron plate has been applied in the form of a cap to assist in the union of the steel blade and malleable cast iron eye of a hoe by the welding process, and therefore I do not claim the iron edge of a hoe uniting plate when not interposed between the steel blade and malleable cast iron eye; and I do not claim the lapping of the margin of the wrought iron plate over the edges of the flanch of the eye.

But I *claim* the welding of a wrought iron plate between the steel blade and the malleable cast iron eye, substantially as and for the purpose set forth; or in other words, I claim the hoe constructed of the three pieces A, B, and C, arranged relatively to each other, and welded together substantially as specified.

No. 20,030.—HORATIO N. BLACK, of Philadelphia, Pa.—*Improvement in Rice Hullers*.—Patent dated April 27, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the employment of an elastic covering for forming one of the rubbers of a huller composed of alternate layers of cloth and vulcanized rubber, the outer surface of which is formed by incorporating with the vulcanized rubber emery or other hard and gritty material, when the same is combined with an adjacent rubber of metal or other hard unyielding material with a grinding or breaking surface for the purpose set forth.

No. 19,745.—J. V. BLACKWELL, of Ovid, N. Y.—*Improvements in Machines for Hulling and Cleaning Clover Seed*.—Patent dated March 30, 1858.—The power is applied to the cylinder C, a cross band from which drives the feed roller D, and another the fan G. The shoe K, is vibrated by the rod M, hung eccentrically to the pulley N on a side rod, which is geared with the shaft of the fan G.

The inventor says: I *claim* the application of the gravitating curtain H, at the point of the eduction of the blast, for the purpose of modifying and diffusing the same, and preventing the waste of seed, substantially in the manner shown and described.

I also claim the combination and arrangement of the overshot grating cylinder C, and feed roller D, with the blast generator G, and blast-regulating curtain H, the whole operating conjointly in the manner and for the purpose described.

No. 20,971.—DAVID HENWOOD and JAMES STEPHENS, of Brooklyn, N. Y.—Assignors to themselves and THOMAS F. ROWLAND, of Brooklyn,



aforesaid.—*Improvement in Machines for Hulling and Cleaning Rice.*—Patent dated July 20, 1858.—The claims and engravings explain the nature of this invention.

The inventors say: We *claim* the cylinder F, provided with wedge-shaped spiral grooves, inclining outwards and downwards, substantially as described, in combination with the stationary india rubber lining D 2, or such equivalent lining that is firm enough to hull the grain, and yielding enough not to break much of it in the process of hulling.

We also claim making the top of the cylinder F convex or conical, with curved wedge-shaped grooves, as described, in combination with the stationary adjustable disk above it, lined with india rubber, gutta percha, or some equivalent substance for the purpose set forth.

We claim a cylinder covered with wire card clothing, in combination with a cylinder of perforated sheet metal, when both are made to revolve in opposite directions for the purposes set forth.

We claim the huller covered by the first claim, in combination with the scourer covered by the fourth claim, arranged and operating as described.

No. 20,249.—JOHN C. BIRDSSELL, of Rush, N. Y.—*Improvement in Machinery for Hulling and Threshing Clover.*—Patent dated May 18, 1858.—The clover is placed on the table A, where it passes over the threshing drum D, where all the clover is beaten loose. The straw is then carried forward over the apron E to the upper bolt B, the clover seed passing through the holes therein and falling on to the under bolt B<sup>1</sup>, where it is further cleaned. It then passes to the table T, and is carried forward by the belt of slats *bb*, and having fallen down the inclined plane P, passes into the cylinder L, where it is effectually hulled.

*Claim.*—The arrangement of the slatted belt *bb*, with the bolt, B B<sup>1</sup>, table T, threshing cylinder D, hulling cylinder L, and fan F, the whole operating in the manner and for the purpose substantially as set forth. It being understood that I claim the above described devices and arrangements only as applied to the construction of clover hulling machines.

No. 20,830.—JOHN F. TAYLOR, of Charleston, S. C.—*Improvement in Rice Hulling Machines.*—Patent dated July 6, 1858.—The object of this invention is to obviate the difficulty attending the use of the crank which has hitherto been most usually employed for giving a reciprocating motion to a pestle D, which works within a vessel of proper form. The pestle requires to be driven with a rapid motion, and as the resistance to its motion, is of course, variable, more force being required at its downward than at its upward stroke, the crank pin as well as the journals of the crank shaft become worn and rendered useless. The invention consists in giving a reciprocating motion to the pestle by attaching the same to a lever *c*<sup>1</sup>, which is operated through the medium of three geared eccentrics F G H, whereby the pestle may be driven with but little wear of the working parts, and by a moderate expenditure of power.



*Claim.*—The employment or use of the curved lever frame attached at one end to the bed piece A, and having the pestle D permanently secured to the opposite end, the above parts being placed relatively with the vessel B, as shown and described, and used in connexion with the geared eccentrics F G H, arranged relatively with each other and the lever frame *c*<sup>l</sup>, substantially as and for the purpose set forth.

No. 19,557.—A. M. GEORGE, of Nashua, N. H.—*Improvement in Machines for Hulling Rice.*—Patent dated March 9, 1858.—The rice is placed in the hopper H, and power applied to the shaft B, the rice in passing down between the rotating conical head C, and shell D, has the hulls stripped from the kernels or grains. The hulls and kernels pass down through the tubes Q into the spouts R, and as it falls the hulls are blown from the kernels by jets of air which issue from the openings *f* in the annular chamber K. The blast is generated by the fan M. When the cylinders J are filled, the cheeks *c* are thrown in gear with the wheels *d*, the openings *e* being closed by slides, and as the cylinders J rotate the grain is polished and rendered smooth.

The inventor says: I do not claim separately or in themselves considered the conical rotating head C and shell D, for they have been previously used for similar or analagous purposes.

But I *claim* the arrangement, as shown and described, of the conical head C, shell D, fan M, and annular blast or wind chamber K, for the purposes specified.

No. 20,138.—FRANCIS BURDICK and LODOWICK BURDICK, of South East, N. Y.—*Improvement in Machines for Hulling Rice.*—Patent dated May 4, 1858 —A detailed description of this invention would require too much space to be given here. The cylindrical runners E are of stone, and are in the form of a frustum of a cone. The runners E are enclosed in corresponding concaves G, each formed from two blocks of stone, one half the concave being cut from one and one half from the other, and so made that the runner fits the concave.

*Claim.*—The peculiar dress in our horizontal stone mill, composed of the frustum of a cone and its corresponding concave, constructed and operating as and for the purpose described.

No. 20,552.—PHILIP DICKENHOFF, of Philadelphia, Pa.—*Improvement in Machines for Hulling Rice.*—Patent dated June 15, 1858.—By making C of wide form a free open space is constantly secured in its “wake” for the discharge of the grain from between the spikes *f g*, and the acting edge of the rapidly revolving clearer by reason of said wide body form thrown *in advance* so as to catch such grain and convey it to the spout before it has time to accumulate on the bottom of the outer cylinder A.

The inventor says: I *claim* the combination with the compensating delivery spout *b* of a revolving clearer C interposed between the said spout and the hulling mechanism or surfaces, essentially as set forth.

I likewise claim the revolving clearer C, constructed as described,



with its opposite acting sides or edges shaped to produce similar action in opposite directions of travel, and the outer ends of said edges formed to counteract the centrifugal throw of the clearer, as specified.

No. 20,833.—ROBERT P. WALKER, of New York, N. Y.—*Improvement in Machines for Hulling Rice*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim wheels or cylinders covered with emery in themselves, neither do I claim india rubber or elastic rollers *h* in themselves, but I am not aware that a surface of emery has ever before been used in connexion with an elastic roller or surface, to one or both of which a motion is communicated so that the emery abrades and removes the hulls of the rice or grain while partially imbedded and held by the elastic surface as specified.

What I *claim* is, first, a surface of emery in combination with an india rubber or other elastic surface for hulling rice or other grain, when motion is communicated to one or both of said surfaces in such a manner that the said surface of emery abrades the hulls for removing the same, as the rice or other grain is partially imbedded or retained by the said elastic surface, for the purposes and substantially as specified.

Second, I claim imparting an end-wise motion to an elastic roller *h* or its equivalent, in combination with a revolving roughened surface, when the same is used for the purpose of hulling rice or other grains, substantially as specified.

No. 20,860.—JOSEPH L. BOSSARD, of Sumterville, S. C.—*Improvement in Machines for Hulling Rice*.—Patent dated July 13, 1858.—This is an improvement in that class of machines for cleaning and hulling rice in which pestles or pounders are used for effecting the purpose. The invention consists in a novel arrangement of arms *b b d* attached to a horizontal rotating shaft *E* for elevating the pestles, whereby the pestles or pounders are elevated the requisite distance by comparatively short arms, and consequently with a corresponding diminution of power.

*Claim*.—The employment or use of the arms *b b d* attached radially to the rotating shafts *E*, in connexion with the projections *c c d* on the pestle shafts *C*, the parts being arranged to operate as and for the purpose set forth.

No. 19,018.—EMIL COHEN, of Washington, D. C.—*Husking and Shelling Glove*.—Patent dated January 5, 1858.—*A* represents a glove or mitten, to the palm of which is secured a shield *B* of leather, metal, or any other suitable material; from this shield extends a number of pins *a* in a direction which is perpendicular to the face of the shield, and consequently to the palm of the hand.

*Claim*.—The husking and shelling glove, as described, as a new article of manufacture, when constructed and operated substantially in the manner and for the purposes set forth.



No. 19,083.—HENRY FISHER, of Canton, Ohio.—*Improvement in Mowing Machines*.—Patent dated January 12, 1858.—This improvement consists in the inner end of a finger-bar, pivoted to the frame of a machine of a weighted lever, by means of which the weight of the outer end of the finger-bar is counterbalanced, thereby removing, in a great measure, the friction of the dividing shoe, which otherwise has a tendency to cause the machine to turn on it as a pivot.

*Claim*.—The arrangement and combination of a weighted lever G, with a finger-bar pivoted to the frame of the machine, substantially as and for the purposes set forth.

No. 19,504.—CHARLES HOWELL, of Cleveland, Ohio.—*Improvement in Mowing Machines*.—Patent dated March 2, 1858.—This improvement consists in a new mode of connecting the main frame to the trunk frame, by means of which the height of the cut may be readily regulated as required, and at the same time the finger-bar allowed freely to accommodate itself to the inequalities of the ground.

*Claim*.—The method of connecting the truck to the main frame of a reaper or mowing machine and of regulating the height of the cut, &c, substantially as set forth.

No. 19,913.—WILLIAM CROOK, of New Hope, Pa.—*Improvement in Mowing Machines*.—Patent dated April 13, 1858.—To the back of the cutter frame is secured the driver's seat Y, so far behind the centre of vibration of the cutter frame that a man of ordinary weight, when sitting on it, will act as a counterbalance, or nearly so, to the cutting apparatus.

*Claim*.—Securing the driver's seat to the hinged cutter frame of a mowing machine in such a position as regards the centre of vibration of said frame, that the weight of the driver may act as a counterbalance, or nearly so, to the cutting apparatus, for the purpose specified.

No. 20,035.—THOMAS D. BURRALL, of Geneva, N. Y.—*Improvement in Mowing Machines*.—Patent dated April 27, 1858.—This invention consists of a peculiar arrangement of devices for connecting a caster wheel with the main frame, in such a manner that the finger board can be elevated, when not in use, the desired amount for cutting the grass closer to the earth or further from it, or for converting the mowing machine instantly into a reaping machine.

*Claim*.—The auxiliary frame *r* and caster wheel *w*, forming a carriage to which the animals are attached by a loose pole, when combined with the sector *s*, lever *t*, and standard *v*, as specified, whereby the forward part of the main frame *a* and the cutter bar *d* are elevated or depressed on a line between the caster wheel *w* and main wheel *b*, substantially as and for the purposes specified.

No. 20,164.—HENRY MARCELLUS, of Amsterdam, N. Y.—*Improvement in Mowing Machines*.—Patent dated May 4, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—Attaching the main frame D of the machine to the axle



A, by connecting the frame, by means of journals *c d*, to the sleeve or collar C, which is placed loosely on the axle A, substantially as and for the purpose set forth.

No. 20,479.—JOHN BUTTER, of Buffalo, N. Y.—*Improved Mowing Machine*.—Patent dated June 8, 1858.—The nature of this invention relates to an improvement in the construction of the frame A B, so as to give the machine the feature of flexibility when mowing, and adjustability for reaping; and in the construction and arrangement of a wheel L to carry the inner end of the finger bar, so that the wheel will tread on a line with the finger bar, and allow the cutter bar to vibrate through the wheel; also, in so constructing the guard fingers that they may be connected to the finger bar and support the finger bar *clear* from the ground, and allow the bar to work on the under side of the finger bar.

The inventor says: First, I *claim* the combination and arrangement of the jointed levers C D E, for the purpose of supporting the driving wheel and giving flexibility to the machine, substantially as set forth.

Second, I claim the arrangement of the carrying wheel L near the heel of the cutter bar, so that the finger bar will pass through the wheel, and the cutter bar (or connecting rod) also vibrate through the wheel, substantially as described.

Third, I claim constructing the guard fingers so that they may be connected to the finger bar, and support it clear from the ground, and also allow the cutter bar to work on the under side of the finger bar, as set forth.

Fourth, I claim the sleeve W, when connected with the spring bars H H, for the purpose of supporting and adjusting the driver's seat on the axle of the driving wheel, as described.

Fifth, I claim the arrangement and support of the raker's seat on the lever C, as set forth.

Sixth, I claim supporting and carrying the outer end of the finger bar, by means of the specific arrangement of the divider N, wheel L, and spring O, as described.

No. 21,607.—GEORGE F. JEROME AND MOSES JEROME, of Mineola, N. Y.—*Improvement in Mowing Machines*.—Patent dated September 28, 1858.—This invention relates to the employment of certain means for elevating and depressing the cutting device or sickle, and sustaining the same, whereby the sickle, as the machine is drawn along, is allowed to readily conform to the inequalities of the surface of the ground.

The inventors say: We *claim*, first, the caster wheel K, when attached to the shoes G G, or their equivalents, by having its arbor J pass loosely through a socket I attached to the cross bar H, and having a swivel *b* at the upper end of the arbor, so that by the aid of the pulleys *c d* or other guides and a chain or cord *e*, the weight of the finger bar and sickle will be transmitted to the caster wheel, and the finger bar and cutter raised and lowered, while the caster wheel is allowed



to turn freely in any direction, without affecting in any way its concomitant parts.

Second. We claim the lever L and spring N, in combination with the chain or cord e, caster wheel K, and shoes G G, when the whole are arranged to operate substantially as and for the purposes set forth.

No. 21,777.—FISK RUSSELL, of South Boston, Mass.—*Improvement in Mowing Machines*.—Patent dated October 12, 1858.—This invention relates to an improvement in that class of mowing machines in which detached pivoted vibrating oscillating cutters are used. The object of the invention is to so arrange the cutters that they will offer no obstruction to the cut grass, but allow the same to pass freely over the finger bar without the possibility of choking or clogging the cutting device.

*Claim*.—Attaching the cutters J to hubs or bosses q, which are fitted on pins r, in the finger bar, and provided with arms u, which are fitted in notches in the cutter bar H, the bosses q, arms u, and bar H being covered by a plate substantially as and for the purpose set forth.

No. 19,936.—ABRAHAM MARCELLUS, of Amsterdam, N. Y.—*Improvement in Track Clearers for Mowing Machines*.—Patent dated April 13, 1858.—The improvement in this track clearer consists in the manner in which a plate or board is operated or vibrated. The plate or board is pivoted to the shoe D, and fitted within the wing E, at the outer end of the finger bar B of the machine, the vibrating board and ring forming the track clearer.

The inventor says: I do not claim separately the wing E and the plate or board F, for they had been previously used.

But I *claim* operating the plate or board F from the driving wheel C, by means herein shown, or its equivalent for the purpose set forth.

No. 19,800.—WILLIAM J. STEVENSON, of New York, N. Y.—*Machine for Shelling Peas*.—Patent dated March 30, 1858.—The operation is as follows: The peas to be shelled are placed in the hopper H, and the roller D is rotated in the direction of the arrows. The hopper is vibrated vertically by means of the cams G, and the peas are fed thereby from a hopper on the endless cords F, which convey the peas to the rollers C D. The pods, as they pass underneath the roller C, are depressed or forced down, the cords F yielding; and the pods will be split by the pressure, and will be caught in the "bite" of the rollers, and as the pods are drawn between the two rollers C D, the peas will be stripped from their pods and forced between the cords F into the draw B.

The inventor says: I do not claim separately and broadly the employment or use of rollers as separators, for they have been previously used for such purposes, as, for instance, in the roller cotton gin, where the seed is stripped from cotton by the same process as herein described.

Neither do I claim broadly the employment of the rollers with an endless belt or carrier, irrespective of the construction of the same,



and its arrangement with the rollers, whereby the apron serves as a carrier for the pods, and allows the shelled peas to pass through it.

I *claim* the combination of the rollers C D E and endless cords F, arranged to operate substantially as and for the purpose set forth.

No. 19,198.—P. C. MOSIER, of Homer, Ill.—*Improvement in Corn Planters*.—Patent dated January 26, 1858.—The nature of this invention consists in pivoting the beam A to the forward axle C, and having its rear end, which carries the tubular furrow opener E, covering shares F F, seed hopper G, and driver's seat, arranged to run directly upon the ground.

*Claim*.—The beam A, when shaped as specified, and pivoted to the axle C by its forward end, and has its rear end which carries the tubular furrow opener covering shares, seed hopper, and driver's seat, arranged to run directly upon the ground, substantially as and for the purposes set forth.

No. 19,242.—NATHANIEL DRAKE, of Newton, N. J.—*Improvement in Corn Planters*.—Patent dated February 2, 1858.—A A are the traction wheels, B is the axle, D the ploughs, and are so constructed to this axle that they may rise and fall independently of each other; the ploughs are hung to the beams Ee Ee Ee, which are jointed to the axle B. The stanchions or posts F are framed into the axle B, to support the rollers G H. K K K are the hoppers, in which the seed is placed; they terminate in tubes L.

The inventor says: I *claim*, 1st, the agitator g, arranged with relation to the seed boxes and valves, substantially as set forth.

2d. Combining with one of the weights which operate the valves, or its equivalent, a cam-shaped gear wheel, corresponding in form with the cams which operate said weights, substantially as and for the purposes set forth.

No. 20,024.—GEORGE TAYLOR, of Richmond, Ind., assignor to Himself and JOHN W. FREE, of Laporte, Ind.—*Improvement in Corn Planters*.—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: Now I do not claim any particular method for the distribution of the grain, but I disclaim the method shown, and all other methods of distribution, for I hold that what is strictly my invention is applicable to many or most methods or devices for distribution now in use.

Neither do I claim the devices shown for operating the distributing apparatus by means of inclined planes j j, held in contact with cam j by means of a spring S, as this contrivance is already before the public.

Nor yet do I broadly claim the use of either springs or weights for operating the marking contrivance.

But I *claim*, 1st, the combination of parts j<sup>1</sup> j<sup>1</sup> l, shaft L, and wheel K, with slide G, for the purpose of correcting the machine and making it plant in line with work already done.

2d. I claim the weighted spring arms p p, operated as shown, in



combination with the devices shown for correcting the machine, when said spring arms are so situated as to mark midway between the rows of planting.

No. 20,074.—OLIVER LIPPINCOTT, of Camden, N. J.—*Improvement in Corn Planters*.—Patent dated April 27, 1858.—This invention consists in the arrangement for attaching a planting apparatus to plough  $Z^1$ , so that the farmer may plough, furrow, plant, and cover his corn at one and the same time:

*Claim*.—The arrangement of the plough  $Z^1$  and its beam B, with frame A, and its hopper C, weight L, slide N, wheel E, and covering share I  $I^1$ , the whole arranged for joint operation, as shown and described.

No. 20,193.—ROBERT J. CLAY, of St. Louis, Mo.—*Improvement in Corn Planters*.—Patent dated May 11, 1858.—This invention consists of a double seed hopper D  $D^1$ , and in applying thereto a reciprocating drop valve J, so constructed and operated as to cause it to drop one, two, or more hills of corn every revolution of the wheel, to which the said valve is to be connected, and by which it is to be operated.

*Claim*.—The arrangement of the hoppers D  $D^1$ , valve J, wheels  $k$ , shaft  $a$ , standard  $e$ , and scraper  $l$ , when the whole are constructed to operate conjointly as and for the purpose specified.

No. 20,297.—L. B. PHELPS, of Geneva, Ohio.—*Improvement in Corn Planters*.—Patent dated May 18, 1858.—This invention consists in constructing an implement for corn planting with runners  $a a$ ; they are made out of two-inch plank, are from four to six inches in width, and about three feet in length. That part of the runners which runs upon the ground is made like a sled runner, and is shod with iron, which should be about four inches in width. The furrow openers  $c c$  are adjustable, and are applied to the front ends of the extended section of the runners, and are held or secured there by a strip of iron bent at right angles around the front ends of the runners, and are firmly screwed to them. The seed boxes  $n$  are placed directly in rear of the furrow openers, and are fastened to board  $h$ .

The inventor says: I do not claim to be the inventor of runners, handles, seed boxes, or furrow openers or drills: these are old devices, and in common use.

But I *claim* the arrangement of the adjustable furrow openers  $c c$ , handles  $f f$ , lever  $k$ , and spring catches  $y y$ , with runners  $a a$ , the whole being constructed for joint operation as described and shown.

No. 20,467.—AUGUSTUS C. CAREY, of Ipswich, Mass., assignor to Himself and ALFRED B. ELY, of Newton, Mass.—*Improvement in Corn-Planters*.—Patent dated June 1, 1858.—The object of this invention is to obtain a corn-planter that will measure off the distance between the hills in a row. To the frame A, in front of the hopper E, is secured a rigid piece O which, projects on one side into the path of the arms N as they revolve in a vertical plane. The end of each arm N is furnished with a claw or long spike  $i$ , which enters the ground as



the arm N falls, and thus detains the arm, and as the machine advances over the ground causes the arms M to revolve in the direction of these arrows; this rotates the roller K and discharges the contents of the hole *d* at regular intervals.

*Claim.*—The described arrangement of mechanism operating independently of the carrying wheels of the machine for the purpose of spacing off the distances between the hills, that is to say, the roller K, the arms M and N, and the piece O, arranged and operating in the manner described for the purpose set forth.

No. 20,639.—PASCAL HATCH, of Norwich, Vermont.—*Improvement in Corn-Planters.*—Patent dated June 22, 1858.—This invention consists in the employment of glazed receptacles C C, immediately in the rear of each grain box A, so arranged and operated that the proper number of kernels of corn for each planting charge will first be deposited in said receptacles, and remain there in plain view of the superintendent during the interval between each movement which deposits a charge of corn in the ground.

*Claim.*—Combining the glazed receptacles C C with grain boxes A A, and with the delivering apparatus connected therewith, when said parts are constructed, arranged, and operated substantially in the manner and for the purpose set forth.

No. 20,781.—WARREN DRUMMOND, of Woodbridge, New Jersey.—*Improvement in Corn-Planters.*—Patent dated July 6, 1858.—This machine is designed for planting two rows of corn at a time. It employs two hoppers, two adjustable tubes K L, with covering shares attached, and two covering rollers H H, which are furnished with scrapers I, so that all dirt shall be scraped from their periphery. The dropping of the corn is regulated by a double acting cut-off E *e e<sup>1</sup> f f<sup>1</sup>*.

*Claim.*—The particular manner described of arranging and combining for united use only the two dropping slides D D, double-acting cut-off plate E *e e<sup>1</sup> f f<sup>1</sup>*, double crank axle H *g g*, covering rollers H H, combined brace and scraper I, adjustable furrow-opening and closing tubes or shares K L, and secondary hopper C C, for the purpose set forth.

No. 21,180.—THOMAS M. BRADGOOD, of Cleveland, Ind.—*Improvement in Corn-Planters.*—Patent dated August 17, 1858.—This invention consists in so arranging and combining the several parts of the machine that the furrow is opened for the reception of the seed, the seed dropped in specified quantities and at specified distances, and covered with soil to a specified depth by it, thus performing at one operation what is usually effected by several distinct machines in a perfect manner and with less expense and labor.

*Claim.*—The inventor says: I do not claim, by itself, any individual part of the machine described.

But I *claim* the combination of the truck wheel E, cam wheel H, lever I, and gauge F, when constructed and arranged in relation to



each other and to the seed box C and spout J, as described, and operating as set forth.

No. 21,187.—JOHN S. DAVIS, of Arcadia, Ohio.—*Improvement in Corn-Planters*.—Patent dated August 17, 1858.—When the valves have been moved by the action of the lever R, the spring U brings them back to their original position and closes the orifice through which the seeds pass. Should it be desirable to plant corn in rows both ways across the field, the pins H are all to be removed from the wheel G, and the ground furrowed or marked in one direction. The operator can at pleasure drop the seeds in these furrows, by causing the machine to be drawn across at right angles thereto, and by a sudden movement toward the handle B of the lever V, whose fulcrum is at V<sup>1</sup>, the valves P are opened, and the seed deposited in the furrow. By repeating this movement at the moment the tube O passes the furrow, rows are planted in both directions. The adjustable guards M and trucks K move laterally with the hoppers, being connected at the piece A to which the hoppers are secured, so that the hoppers and adjustable guards will always have the same relative position towards each other.

*Claim*.—The adjustable guards M, truck K, and adjustable hoppers I, in combination with the adjustable connecting rods S S, lever R, and rod Q, the whole combined and operating in the manner described, and for the purpose set forth.

No. 21,287.—HORACE WHITMAN, of Kingsville, Ohio.—*Improvement in Corn-Planters*.—Patent dated August 24, 1858.—The nature of this improvement consists in hinging the adjustable or articulating frame, that carries the teeth and blades to the framework of the machine, and in the manner of elevating and depressing the frame and teeth, in combination with the means employed to distribute the grain at certain and definite distances.

*Claim*.—The adjustable or articulating frame c hinged to the machine and provided with the teeth and blade in combination with the rock-shaft Q, weighted lever T, and lever I, when arranged in relation to a seeding machine, substantially in the manner and for the purposes set forth.

No. 21,393.—FRANKLIN W. WHITE, of Worcester, Mass.—*Improvement in Corn-Planters*.—Patent dated August 31, 1858.—This invention relates to the devices for dropping the corn or potatoes in the furrow opened by the machine; and in connexion therewith the manner of covering the grains, seed, or anything dropped in the furrow.

The inventor says: I *claim*, first, operating the seed slides through the rod *p* and its arm *r* and the hole or holes *s* in the wheel *d*, substantially as described.

I also claim, in combination with a dropping apparatus, and the double mold-boards for opening the furrow, the openings *w* and guides *x* for admitting and directing the earth or soil that is to cover the seed, substantially as described.



No. 21,404.—A. G. BABCOCK, of Galesburg, Illinois.—*Improvement in Corn-Planters*.—Patent dated September 7, 1858.—The nature of this invention consists in the arrangement of a carriage with two wheels, axletree, and body-frame, with an upright standard on each side of the frame near the front. Across from the top of the standards is a rocking shaft or rod, to which is attached a swinging or vibrating frame.

*Claim*.—The arrangement and combination of the entire machine, for the purpose of planting corn.

No. 21,583.—CHARLES VAN HOUTEN, of Sunbury, Ohio.—*Improvement in Corn-Planters*.—Patent dated September 21, 1858.—The nature of this invention consists, first, in the employment of the hinged, adjustable, and laterally sliding hopper and share-frames, furnished with a spring stop or catch, in combination with a long transverse pinion, and the propelling axle.

It consists, second, in the combination of the hinged grated apron, with the subsoiling covering shares and furrow opener, whereby the furrow is opened and the dirt thrown to each side, and subsoiling performed, and the soil perfectly pulverized before falling upon the cam, and any desired quantity of soil can be thrown upon the corn.

The inventor says: I *claim*, first, the employment of the hinged, adjustable, and laterally sliding hopper and shareframes E, furnished with a spring stop or catch M, in combination with a long transverse pinion S, and the propelling axle C, substantially as and for the purposes set forth.

Second. The combination of the hinged grated apron J, with the subsoiling covering shares I, and furrow opener H, substantially as and for the purposes set forth.

No. 22,183.—DANIEL LADD, of Dearborn, Michigan.—*Improvement in Corn-Planters*.—Patent dated November 30, 1858.—The nature of this invention consists in planting corn and other seeds by means of a suitable frame mounted on wheels, drawn by a horse, and so constructed by the rotating of the axle that the seed is deposited at equal distances, in furrows made by small plows attached to the under side of the frame, the seed passing from a box (containing hoppers at each end, which is supported on a frame) is deposited in the furrows through tubes reaching nearly to the ground in rear of the plow, and is covered by scrapers attached to the frame in rear of the tubes.

*Claim*.—The peculiar arrangement of the frame A, shafts B B, axle C with cavities *a a*, wheels D D, box E, plows F F, tubes G G, scrapers H H, and rod I attached to axle C, when made and used identically as described and for the purposes set forth.

No. 19,438.—DANIEL B. NEAL, of Mt. Gilead, Ohio.—*Improvement in Cotton Seed Planters*.—Patent dated February 23, 1858.—Motion is communicated by the driving wheels to shaft J, and by the shaft to cylinders F F; the cylinders turn in such a manner that their arms or teeth *c c c c* coming together will turn downward and convey the seed from the hopper. The amount of seed which reaches the cylinder



F F is regulated by the bottom C and the slide D. The cover D slides between the two bottoms C and *g*, and serves to cover the aperture in the bottom C, when the bottom is stationed at any given point.

*Claim.*—The arrangement of the adjustable bottom C and *g*, with the sliding cover D, and cylinders F F, all operated as set forth, and the purpose fully described.

No. 19,874.—JAMES ROSS, of Midway, Alabama.—*Improvement in Cotton Seed Planters.*—Patent dated April 6, 1858.—The nature of this invention consists in combining with the discharge plate an agitator, having a combined vertical and oscillating movement, for the purpose of more thoroughly preventing the packing of the cotton seed in the hopper.

*Claim.*—The combination of the hollow shaft and arms, flanges *l l*, shaft *c*, discharge plate *a*, and mechanism vibrating the same, arranged and operating substantially as and for the purpose set forth.

No. 20,049.—J. T. DONOVAN and W. J. FOWLER, of Seguin, Texas.—*Improvement in Cotton Seed Planters.*—Patent dated April 27, 1858.—The forward movement of the machine causes the rotation of wheel *W*<sup>1</sup> in the direction of the arrow, the notches of this wheel catching the seed and conveying them to the tooth T. The rotation of shaft B produces the rotation of the agitating shaft C, the arms of which loosen the seed and prevent packing, while the depending brushes *b* insure the filling of the notches *n* of wheel *W*<sup>1</sup>, as the seed will be thus prevented from arching over the wheel *W*<sup>1</sup>.

*Claim.*—The combination of notched wheel *W*, shafts C, arms *a*, and depending brushes *b* thereof, with the circular hopper, the whole arranged for joint operation as shown and described.

No. 20,432.—JOHN S. HUGGINS and ROWLAND CHAPMAN, of Darlington district, S. C.—*Improvement in Cotton Seed Planters.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The arrangement of the frame A and its furrow opener B, ring C, handles D, braces F, hook G, brush H, and cover I, with the cylinder K, and its receivers N; discharge aperture *h*, cavity *f*, and fender O, the whole being constructed for operation conjointly in the manner and for the purpose set forth.

No. 20,572.—ARNOLD McDONALD, of Salem, Miss.—*Improvement in Cotton Seed Planters.*—Patent dated June 15, 1858.—When the machine is in motion the roller A, turning on the ground, gives motion to the cog-wheel B on its axle, which, turning into the cog-wheel C, gives motion to the shaft T, and its grooved seed distributing wheel D and stirrers *b b b b*. The stirrers *b b b b* keep the seed in constant agitation, and cause them to fill the groove *i i* on the seed distributing wheel D, which, in passing through the opening *x x* in the bottom of the hopper E, deposits them in drills.

*Claim.*—The combination of shaft T, its grooved seed distributing wheel D, and stirrers *b b b b*, with hopper E, the whole being con-



structed, arranged, and operating in the manner and for the purpose described.

No. 20,694.—EDWARD T. BOSTRUM, of Newnan, Ga.—*Improvement in Cotton Seed Planters*.—Patent dated June 29, 1858.—This invention consists in a novel distributing device, whereby a proper and uniform discharge of seed from the hopper is insured, and also in a peculiar arrangement of furrow share, covering blades, cleaners, and gauges. These are provided so that the furrows that receive the seed are made of a uniform depth, the seed properly covered, and all weeds, sods, &c., prevented from entering the furrows while they are being formed, and the seed covered.

The inventor says: I do not claim separately any of the parts, irrespective of the arrangement shown.

But I *claim* the combination of the screw F and shaft E, placed within the seed box D, and provided with beaters *a*, the whole being arranged to operate as and for the purpose set forth.

No. 21,308.—HORATIO P. ALLEN, of Bowling Green, Ky.—*Improvement in Cotton Seed Planters*.—Patent dated August 31, 1858.—This invention consists in the tangentially set lifting shelves when slotted and used on the inner circumference of a rotating hopper E, which has a continuous discharge passage, whereby the seed are lifted and held till they are brought to the front and rear parts of the hopper, and thus their discharge insured at these two points at the same time; the hook I drawing one portion of the seed off the left shelf and out at the rear of the hopper, while another portion is escaping at the front by their own gravity, owing to the shelves when at the front of the rotating hopper becoming inverted and compelling the seed to fall down and discharge through the central space of the hopper.

The inventor says: I *claim*, first, the combination of the hook, when arranged to reciprocate, with rotating hopper, substantially as and for the purposes set forth.

Second. The tangentially set shelves when slotted and used on the inner circumference of a rotating hopper, which has a continuous discharge passage G, as specified and for the purpose set forth.

No. 19,329.—JOSHUA FAIRBANK and EDWIN C. DUFEE, of Leon, New York, administrators of JOHN B. FAIRBANK, deceased.—*Improvement in Hand Corn Planters*.—Patent dated February 9, 1858.—The nature of this invention consists in so constructing the parts of the machine as to make it capable of depositing the seed in the ground by pressing it out at the side of the rectangular tube B that carries it into the soil. The seed hopper is located in a central position, and the corn is conducted from it through the inclined tubes J J to the depositing cups R.

*Claim*.—The particular improvements which constitute the said invention, and which are claimed as having been originally and first invented by the said John B. Fairbank, are—

First. The adjustable measuring cups B, with a movable bottom



operated by the upward motion of the cups relatively to other parts, as specified.

Second. The thruster S, and Slide V, or their equivalents, when used for giving the side pressure to the corn, in the manner and for the purposes above stated.

No. 19,540.—H. F. BATCHELLER, of Sterling, Illinois.—*Improvement in Hand Corn Planters*.—Patent dated March 9, 1858.—This invention consists in the employment or use of a slide and seed distributing roller B, arranged relatively with a seed box A, whereby the slide D is made to rotate the seed distributing roller, and also to force the seed into the earth. An adjustable gauge board C is also employed attached to the device, so that it may easily be removed when necessary.

The inventor says: I do not claim the seed distributing roller B, for that is an old device and in common use on many kinds of seed drills, nor do I claim the slide D, for that is also in common use in hand planters.

But I *claim* the combination of the pressure slide D and seed distributing roller B, arranged as shown and placed relatively with the seed box A, so as to operate substantially as and for the purpose set forth.

No. 19,833.—DANIEL G. COPPIN, of Cincinnati, Ohio.—*Improvement in Hand Corn Planters*.—Patent dated April 6, 1858.—The nature of this improvement consists in the arrangement of devices employed for making a suitable receptacle in the ground for the corn, so that it can be covered with a proper depth of dirt without pressing the dirt over the grain; also, dropping and scattering the corn as it is discharged from the machine to prevent it from rotting by lying in a heap and give it a chance for growing properly.

*Claim*.—The combined arrangement of the concave plate K, lever *h*, and seed rod *f*<sup>1</sup>, arranged with the pipes *d* and *g*, and spring J, all constructed and operated as represented, for purposes mentioned in the specification.

No. 19,054.—H. WAINRIGHT and S. T. WILLIAMS, of Farmingdale, New Jersey.—*Improvement in Potato Planters*.—Patent dated January 5, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We do not claim the employment of a fork for drawing potatoes from a hopper in planting, being aware that such has been before used.

But we *claim* the combination of a tripping fork H, with a reciprocating trough I, so that the fork will, by a uniform movement, alternately take a potato from the trough and deposit it in the drill tube, as specified.

We also claim the arrangement of the inclined reciprocating troughs I I, with revolved winged rollers *i i i*, operating as described, in combination with the hopper L, provided with removable bottoms *m m*, whereby the potatoes are supplied as fast as required to the troughs, as described.



We also claim the wedge-like projections *h h*, in combination with the reciprocating trough, in the manner and for the purpose set forth.

No. 19,178.—JOHN R. ALBERTSON, of Allegheny, Pa.—*Improvement in Potato Planters*.—Patent dated January 26, 1858.—The nature of this invention consists in furnishing the front end of the hopper *h* with rods *r*, so arranged as to allow the fingers on the belt *z* to pass between them; said rods being used for the purpose of preventing the seed from rubbing against the belt, thereby avoiding friction, wearing, and tearing of the belt. It also consists in the arrangement of the belt with the fingers *f*, the pulleys *p*, the wheels *w*, and the depositing tube *n*, and there held by the fingers *f*, until it is the proper time to deposit the seed.

*Claim*.—The arrangement of belt *z* and fingers *f*, with rods *r*, and hopper *h*, in the manner and for the purpose described.

No. 19,294.—EDWARD E. HAWLEY, of New Haven, Conn.—*Improvement in Potato Planters*.—Patent dated February 9, 1858.—The operation of the machine is as follows: The hopper *F* being filled with potatoes, or pieces of them, and the hopper *H* with fertilizing material, the machine is moved by a team attached to its pole or tongue, causing the planting wheels to rotate. The potato or pieces of them are taken up by the pockets *e* in the periphery of the planting wheel *E*, as soon as the pockets pass the point where the two planting wheels come in contact with each other, and are carried around the knife *G*, cutting off any portions projecting from the pockets beyond the line of the periphery, and dropped from the pockets into the mouth of the conductor *L*, from whence they fall to the ground into the trench prepared for them by the cultivator *M*.

The inventor says: I *claim* first, the combination of the planting wheel *E*, with the knife or cutting blade *G* to effect the purpose named, as set forth.

Second. The combination of the planting wheels *E E*<sup>1</sup>, with the hopper *F*, when arranged in relation to each other, in the manner and for the purposes described.

No. 20,001.—F. S. McWHORTER, of Smyrna, Del.—*Improvement in Potato Planters*.—Patent dated April 20, 1858.—This machine consists of an endless chain of conveyors *E*, which continuously receive the pieces of potato from a side hopper *I*, and carry them to a planting tube *C*, which conducts them into the ground.

*Claim*.—The employment of a transverse hopper *I*, having an inclined bottom, and arranged on one side of the endless chain conveyor *C*, in combination with a longitudinal guide and retaining box *G H*, which has its rear portion inclined, and its front portion horizontal, and a brush *K*, which brushes off any surplus pieces of potatoes which may collect in the cells or chambers of the endless conveyor, substantially as and for the purposes set forth.

No. 19,010.—HENRY F. BAKER, of Centreville, Ind.—*Improvement in Seed Planters*.—Patent dated January 5, 1858.—In the illustra-



tions A represents a revolving shaft, arranged in rear of the drill teeth, being supported by the bearings D E of the drill frame. B B are the blades or clearers, arranged radially on the shaft A. These clearers are made with a sharp edge, and with a slight hook form at their lower end, and are of a sufficient length to pass a short distance below the points of the teeth. C is a pinion on the end of the clearer shaft. The heaver D is adjustable, so that the pinion may be thrown in and out of gear. The adjustment is effected by a curved slot G, and adjusting lever I and stop bar J.

The inventor says: I do not claim broadly the use of clearers, in combination with seed drill teeth, as this is common.

But I *claim* the arrangement of hook-pointed edged blades, or other suitable clearers, in such relation to the points of the drill teeth to one another on the shaft, that in the revolution of the shaft they alternately come on opposite sides of the teeth, and pass down slightly below the points of the same, substantially as and for the purposes set forth.

No. 19,026.—M. J. HUNT and J. H. HAINES, of Rising Sun, Maryland.—*Improvement in Seed Planters*.—Patent dated January 5, 1858.—The nature of this invention relates to the construction and operation of seed slides so as to keep the grain in motion and more certainly ensure regular planting. The peculiar construction of the cross-head that operates said slides, so that a single one or a pair may be used without cramping the parts or causing them to work hard.

*Claim*.—First. A vibrating slide formed with an offset *d*, substantially in the manner and for the purpose described.

Second. Giving to said slide a vibrating motion by means of cross-heads G, having a third arm H extending from it, substantially in the manner and for the purpose set forth.

No. 19,122.—SAMUEL BAKER, of Mount Pulaski, Illinois.—*Improvement in Seed Planters*.—Patent dated January 19, 1858. The claim and engravings explain the nature of this invention.

The inventor says: I do not claim, broadly, and irrespective of the arrangement shown, the reciprocating bar W, provided with the recess *k*, and working vertically through the seed-box X, for distributing the seed, for this is a well known device, and is common to many seeding machines.

But I *claim* the reciprocating bar W, provided with the recess *k*, when operated by means of the working beam F, link *a*, rod *b*, and crank *c*, on the adjustable shaft G, connected with the lever L, substantially as shown, for the purposes specified.

No. 19,126.—JOHN A BROWN, of Richmond, Indiana.—*Improvement in Seed Planters*.—Patent dated January 19, 1858.—In operating this machine, as the seed-boxes revolve the toppets *c c*<sup>1</sup> come in contact with the arms E E; this moves the slides to the position shown at the bottom of figure 3, and allows the seed to fall upon the valves *d d*. The levers of these valves now come in contact with the horizontal parts *e e*, opening the valves and discharging the seed to the



earth. The other set of tubes follow in a similar manner, and thus they operate alternately until the required labor is performed.

The inventor says: I am aware that corn planters are in use in which the seed-boxes are attached directly, either to the spokes or hubs of the wheels. My invention, however, is quite distinct from these, inasmuch as in mine the boxes are attached to the axle, from which one wheel may be loose, and free to move within the seed-boxes, as shown.

But I *claim* the arrangement of seed-boxes B B<sup>1</sup> upon axle *a*, in combination with the distributing and discharging devices shown, said devices being operated by the arms E E, as set forth.

No. 19,222.—J. D. WILLOUGHBY, of Pleasant Hall, Pennsylvania.—*Improvement in Seed Planters*.—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first. The rubber spring *u*, in combination with the chair D, screw T, and nuts *v v*, to hold the joint *c* in any desired position with any desired firmness, for the purpose of making bar S a flexible and adjustable brace for grain drill-tubes or shovels, which can be graduated to bear different degrees of resistance, and to hold the tube G<sup>1</sup> at any desired angle, to regulate the depth of the tube in the soil when the seed is being planted.

Second. The combination of the rod *g* with the inclined standard D on the pole, for the purpose of cutting off the discharge of the seed, and elevating the seed-tubes and cleaners, substantially as described.

No. 19,274.—JOSEPH H. WIGGIN, of Boston, Mass.—*Improvement in Seed Planters*.—Patent dated February 2, 1858.—This invention consists in the arrangement of the planting cylinder, and the reciprocating toothed bar operated by the rear wheel, which operates in such a manner that every forward movement of the bar gives to the seeding cylinder half a rotation on its axis, charges the seed boxes with grain from the hopper, and discharges the same into the hill, and that every return movement of the bar repeats the same operation.

*Claim*.—The arrangement of the seeding cylinder *h h*<sup>1</sup>, and toothed bar *b b*<sup>1</sup>, for planting seed automatically, in the manner and for the purpose set forth.

No. 19,456.—DANIEL L. TILTON, of Mount Carmel, Ill.—*Improvement in Seed Planters*.—Patent dated February 23, 1858.—C is a seed hopper, one side of which consists of a rocking block D whose fulcrum *d* rests in a bracket E. The vibration of the block D is effected by a rod F extending forward to circle of tabs *b* on the wheel B, and confined at its front end by a stirrup G. H is a swing valve, which, being raised by means of a cord I, closes the ventage in seed hopper C at any time desired.

*Claim*.—The arrangement of the vibrating block D, adjustable bracket E, with or without the valve H, in the described combination with the hopper C, for the purposes set forth.

No. 19,404.—L. A. BUTTS, of Cuba, N. Y.—*Improvement in Seed Planters*.—Patent dated February 23, 1858.—This invention consists



in connecting a seed-distributing device with a covering device in such a way that both will be operated simultaneously, and the seed not only planted and covered at the same time with one and the same machine, but also planted in readily distinguishable hills.

The inventor says: I am aware that covering holes have been applied to seed-planting machines; and I am also aware that various plans have been devised for connecting and disconnecting, or throwing in and out of gear, with the driving wheels, the distributing devices of such machines.

I therefore do not claim, broadly, and irrespective of construction and arrangement, such devices.

But I *claim* the arrangement of the hoes V, rods *h*, shafts K M, plungers I, and connecting rods U N, substantially as and for the purposes set forth.

No. 19,579.—JOSEPH REDHEAD, of Woodville, Miss.—*Improvement in Seed Planters*.—Patent dated March 9, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the seed distributor G hung upon hinged arms, and agitated as described, for the purpose of sifting the seeds through the opening or openings in its bottom, as set forth.

Second. I claim a supply seed box C, rocking or oscillating on its supporters, as an auxiliary in furnishing the distributor with seeds without so overcharging said distributor as to cause the seed to choke or clog therein, substantially as described.

No. 19,549.—WILLIAM C. DOSS, of Texana, Texas.—*Improvement in Seed Planters*.—Patent dated March 9, 1858.—The nature of this invention consists of a cylinder F made to revolve at the bottom of a hopper E, the cylinder being provided with fingers G about an inch in length, by which cotton seed are deposited regularly through a tube at the bottom of the colter M, and behind it, and by means of cups H.

*Claim*.—The cylinder F provided with the cups H, and fingers G, in combination with the cylinder J armed with obliquely set paddles K, arranged and operated in the manner and for the purpose specified.

No. 19,818.—SAMUEL THOMPSON, of Hopcdale, Ohio, assignee to himself and A. W. Paggart, of said Hopedale.—*Improvement in Seed Planters*.—Patent dated March 30, 1858.—This invention consists in having a series of cutters D attached to the periphery of wheels C, which are placed in a framing A, and combined with reciprocating seed-slides F in such a way that the cutters will form holes in the sod to receive the seed dropped by the action of the slides.

The inventor says: I do not claim separately the reciprocating slides F for distributing the seed, for they are a well known device and in common use.

But I *claim* the cutters D attached to the wheel C, of the framing A, in combination with the seed-distributing slides F, operated by the cams *e* attached to the cutter-wheels C, substantially as and for the purpose set forth.



No. 19,953.—THOMAS RUSSELL, of Waldoborough, Maine.—*Improvement in Seed Planters*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* arranging the arm *b* of the rocker-shaft *c*, so as to extend and operate in the space *I*, between the wheels as described, in order that such arm may serve to clear the said space between the wheels from earth which may adhere or be taken up therein.

I also claim in connexion with a hopper made removable from the frame as specified, applying the movable brush *O* to the dropper or valve *K*, by means of an arm *u* extending down from the brush-shaft and into the dropper *K*, in the manner described, the same being for the purposes specified.

No. 20,158.—JAMES J. JOHNSTON, of Allegheny, Pa.—*Improvement in Seed Planters*.—Patent dated May 4, 1858.—The nature of this invention consists in an arrangement for lifting up and lowering down the share of the planter, and cutting off the seed from the seed-chamber, and also in an arrangement of flexible bottoms in the seed-chambers.

The inventor says: I *claim*, first, the arrangement of the flexible bottoms *b*, springs *c*, rod *d*, and division piece *e*, in the seed-chambers *a*, as herein described and for the purpose set forth.

Second. The arrangement of the depositing tube *g*, with lugs *t*, share *h*, rod *i*, lever *j*, and sliding gate *k*, as described and for the purpose set forth.

No. 20,143.—JAMES CHARLTON, of Allegheny, Pa.—*Improvement in Seed Planters*.—Patent dated May 4, 1858.—The nature of this invention consists in an arrangement of enlarging or contracting the size of the seed-chambers, so that they may be made to suit the various kinds and sizes of seed. Also in an arrangement for regulating the depth of the furrow made by the share or tooth of the planter.

The inventor says: I *claim*, first, the rings *y*, with the lugs *b*, projecting studs *t*, and heads *c*, in connexion with the strips *x*, and cylinder *g*, for the purposes of enlarging or contracting the seed-chambers, and agitating the seed in the hopper.

Second. The arrangement of the flexible rods *S*, axle *k*, yoke *j*, lever *p*, and strip *r*, with notches 1 and 2, as described and for the purpose set forth.

No. 20,440.—ELMON PARKER, of Baltimore, Md.—*Improvement in Seed Planters*.—Patent dated June 1, 1858.—The cams *J m* are so arranged that when the wheel turns, and as quick as the seed drops, the cam will let the rod *k* go by the spring *L*, the tube and rod will spring forward, off of the seed, and let the seed lie where it is dropped. Inside of the other wheel is the cams *m*, from which is run rod *n*, as far forward as the dropping tube *i*, turned up over the beam, and the end turned down so that it will go through the hole of the slide when the hole is out over the dropping tube. When the cam lets the rod go, the forward end will spring down, by means of the spring *p*, and knock out any seed that may be in the hole.



*Claim.*—The arrangement of rods  $n k$ , and their springs  $p L$ , with the cams  $J m$ , the whole being constructed substantially as and for the purpose set forth.

No. 20,651.—JOSEPH MCKOWN, of Gardstown, Va.—*Improvement in Seed Planters.*—Patent dated June 22, 1858.—With this seed planter the seeds are drawn from the hopper B continuously by two alternately acting slides F G, and dropped into the seed tubes, which conduct it into the soil. The seeds, as fast as dropped, are covered by means of shares and a roller.

*Claim.*—The arrangement of two or more alternately operating slides F G, cut-off device H I, crank shafts J N O, intermediate gearing L M, adjustable standards J<sup>1</sup>, and extension connecting rods K K K<sup>1</sup> K<sup>1</sup>, substantially in the manner and for the purpose described.

No. 20,749.—AUGUSTUS WALES, of Pontiac, Ill.—*Improvement in Seed Planters.*—Patent dated June 29, 1858.—A is the frame of the machine, C, a cross-piece in the frame, on which are erected the uprights B B,  $f$  is the driving wheel and is provided with two cranks  $g$ , one on each side, and to which are secured the pitmans  $h h$ . These pitmans connect with a lever,  $i i^1$  being an extension of said lever. D is a roller which has its bearings in the uprights B B, through which the levers pass. Lever  $i^1$  connects with a gate E.

*Claim.*—The arrangement of the two cranks  $g$  to the wheel  $f$ , the pitmans  $h h$ , the levers  $i i i^1 i^1$ , and rollers D D, with gates E E provided with slides  $c c c$ , all being constructed and operated in the manner set forth and for the purpose described.

No. 20,738.—GEORGE SMITH and A. G. PERRY, of Clyde, Ohio.—*Improvement in Seed Planters.*—Patent dated June 29, 1858.—This invention consists principally in the construction, combination, and arrangement of the several parts of a hill and row corn planter, with a cultivator, so as to be readily adjusted and adapted to purposes, first, of a seed drill; secondly, a hill and row planter; thirdly, a ridge plough; fourthly, a cultivator, hilling plough, and shovel plough.

*Claim.*—The shaft O and spring P, adjustable spring box Y, pulley H, lever L, seeding cylinder R, hopper S, and the cultivator, as described when the whole are constructed and arranged for operation conjointly, in the manner and for the purposes set forth.

No. 20,709.—RICHARD B. GROUND, of Marine Town, Illinois.—*Improvement in Seed Planters.*—Patent dated June 29, 1858.—The frame work consists of three individual frames, whose side beams  $m n o$  are all combined with and freely play upon the journals of a single shaft  $q$ . The side beams  $n n$  of the intermediate frame play freely between the side beams  $m m$  and  $o o$ , and the forward ends of the beams  $n n$  project a short distance forward of the shaft  $q$ , and are connected to each other by the cross-bar  $r$ . The grain boxes  $t t$ , the channeling ploughs  $y y$ , and the apparatus for depositing the seeds or kernels in the soil are all combined with the sides of the innermost frame of the planter.



*Claim.*—The arrangement of the respective parts of the planting apparatus with the adjustable three-fold frame work of my improved corn planter, substantially in the manner and for the purposes set forth.

No. 21,034.—J. H. THOMAS and P. P. MAST, of Springfield, Ohio.—*Improvement in Seed Planters.*—Patent dated July 27, 1858.—By the first feature of this invention the agitation, lifting, and certain deposit of grain in equal quantities is accomplished; also a discharge of the same into the drill tubes. And by the second feature grass seed can be planted at the same time that wheat is planted, in the rear of the drill tubes, instead of (as usual) in front of the same, and thus the disadvantage of having the grass seed planted in the deep furrows with the wheat is avoided, and said seed can be planted on the surface, as it should be in order to spring up speedily.

The inventors say: We *claim*, first, the use of flaring inclined, gutter-shaped arms  $G^3$   $G^3$  on the shaft, which is arranged in the hopper  $G$ , and lift and agitate the grain, in combination with the peculiar construction of distributing slide described, substantially as and for the purposes set forth.

Second. The employment of the above wheat hopper  $G$ , and its attachments, as described and shown, in combination with a grass seed hopper  $H$ , and the flaring seed conductors  $H^1$ , when said grass seed hopper and flaring conductors or spreaders  $H^1$  are arranged behind the wheat hopper  $G$ , and so located that the back board  $a$  of the wheat hopper shall completely overhang the same, substantially as and for the purposes set forth.

No. 21,102.—JAMES D. WILLOUGHBY, of Carlisle, Pennsylvania.—*Improvement in Seed Planters.*—Patent dated August 3, 1858.—In operating this machine, motion being given to the shafts by means of the cog wheel  $A$  and the pinions  $D$  and  $E$ , so that as the rubber rollers  $F$  turn they revolve toward each other. The seed being placed in the hopper falls between the rollers, and is carried out between them. As the rollers fit closely together the seed, in order to pass down, must indent the rollers, and it is thus pressed tightly as it passes through, but in no way injured, the slide being so arranged that more or less of the rollers may be exposed to the seed.

*Claim.*—The arrangement of the rollers  $F$   $F$ , placed horizontally with the slide  $H$ , as constructed, for regulating the discharge of the seed, and the frame  $J$  for keeping said roller in place, and preventing the lateral discharge of seed, as is fully set forth.

No. 21,112.—ADDISON BURDAN, of Macon, Michigan.—*Improvement in Seed Planters.*—Patent dated August 10, 1858.—As the machine is drawn along the driving wheels  $B$  give a rotary motion to the main shaft  $C$  and bevel wheel  $F$ ; that in turn gives a rotary motion to the pinion  $G$ , shaft  $H$ , and crank  $I$ , which in turn give reciprocating motion to the piece  $L$ , by means of connexion  $J$ ; said connexion being pivoted to the piece  $L$  at  $K$ . When the piece  $L$  is thrown to the left of the connexion  $J$ , the adjustable tubes  $3$  are thrown directly under



the hoppers O, from whence they receive their seed through the holes in the top plate N. The seed in the hoppers is divided from the seed in the tubes by means of the brushes 1, as the piece L moves to the right, as seen in the engraving.

*Claim.*—The arrangement of the reciprocating piece L, adjustable tubes 3, stationary piece M, and top plate N, with hoppers O, the whole being constructed for operating conjointly as set forth.

No. 21,127.—H. C. FAIRCHILD, of Brooklyn, Pa.—*Improvement in Seed Planters.*—Patent dated August 10, 1858.—This invention consists in having the lower end of the seed box fitted with a stationary cylinder, to which a plunger and case are attached, the seed box being allowed to rotate, and by its movement distributing the seed and actuating the plunger.

The inventor says: I am aware that seed distributing devices formed of movable and stationary plates or slides, and a cut-off similar to the device herein described, have been used, but I am not aware that a distributing device has been arranged with a rotating or semi-rotating seed box and plunger, so that the distributing of the seed and the operating of the plunger could be effected by rotating the seed box. I do not claim, therefore, broadly and separately, the distributing device, but

I *claim* the rotating or semi-rotating seed box A, provided with the cylindrical case B, fitted within the case C, in connexion with the plunger E, connected with and operated by the movement of case B, as shown, the plunger case D attached to case C, and the seed distributing device formed of the perforated bottoms *d f* of the cases B C, and the cut-off I, the whole being arranged for joint action, substantially as and for the purpose set forth.

No. 21,137.—E. W. KIMBALL, of Ottawa, Illinois.—*Improvement in Seed Planters.*—Patent dated August 10, 1858.—This invention consists in placing a reciprocating hand-slide within a proper case, and having an endless band, provided with a seed-cup attached thereto, the slide dividing the case into two equal parts, and having an opening made in it to allow the seed to pass through, the above parts being used in connexion with a spring plate and rest plate, or guide.

*Claim.*—The slide B, placed within the box or case A, perforated at D, and provided with the endless band *c*, and the seed-cap D attached, in connexion with the elastic or yielding plate *e* and rest plate or guide *f*, placed at the lower end of the box or case. It being understood that I do not claim separately any of the parts, but the whole combined and arranged, as and for the purpose set forth.

No. 21,217.—JONATHAN H. ROSE, of Versailles, Illinois.—*Improvement in Seed Planters.*—Patent dated August 17, 1858.—This invention consists in a novel arrangement and adaptation of a seed distributing device to a plough, whereby the operator, while guiding the plough, may actuate at will and with facility the seed distributing device, the same, owing to its peculiar construction, being capable of



ready adjustment, so that the discharge of seed may be regulated as occasion may require.

The inventor says: I do not claim broadly the parts pertaining to the shovel-plough, nor do I claim the covering shares F F; neither do I claim broadly the employment of an adjustable slide to regulate the amount of seed to be planted at each dropping, for slides have been arranged in various ways for such purpose. I am not aware, however, that a seed-slide and adjusting bar have been arranged, as shown, so as to form the exceedingly simple device described, to wit: a supplemental seed chamber and adjustable seed-slide combined.

I *claim* the seed distributing device formed of the slide, bent or lowered as shown, and the adjustable bar G fitted in the seed-box E, the whole being arranged and connected with the plough for joint operation, substantially as and for the purpose set forth.

No. 21,397.—W. A. MAHAFFY, of Carimona, Minnesota, assignor to JOHN GREEK, of Evansville, Indiana.—*Improvement in Seed Planters*.—Patent dated August 31, 1858.—This invention relates to an improved seed-distributing device, whereby the seed is discharged in measured quantities from the seed-box, and conveyed from thence to the conveying tubes at the bottom, of which the furrow teeth are formed, the seed being deposited in the furrows in quantities precisely the same as they are discharged from the seed box.

The inventor says: I am aware that the reciprocating perforated seed-slides have been previously used; and I am also aware that wheels or cylinders, provided with seed cells, have also been used for distributing seed; but I am not aware that reciprocating slides have been used in connexion with rotating cylinders, provided with seed cells and pins to serve as cams or tappets to actuate the slides, and also as conveyors to carry the seed to the conveying tubes. I do not claim, therefore, separately and broadly, the seed-slides, nor the wheels provided with seed-cells.

But I *claim* the seed slides b, in combination with the wheels or cylinders E, arranged for joint action, substantially as and for the purpose set forth.

No. 21,440.—BENJAMIN OWEN, of Dayton, Ohio.—*Improvement in Seed Planters*.—Patent dated September 7, 1858.—This invention consists in a covering device arranged so that the seed may be covered with a proper quantity of earth by a simple arrangement of means. It is more especially adapted to Indian corn or maize, but may be used for planting other kinds of seeds in hills.

*Claim*.—Operating the arms S, and hoe T, by means of the disks N R Q, provided with teeth or spurs, and arranged as and for the purpose set forth.

No. 22,156.—J. F. BECKWITH and A. G. GAGE, of Alabama, N. Y.—*Improvement in Seed Planters*.—Patent dated November 30, 1858.—This invention consists in arranging the lever for raising the marking wheel, so that the axle of the wheel forms the fulcrum of the lever, by which means the power is applied directly to the axle of the



marking wheel without the aid of intermediate connexions. Also in arranging the crank on the marking wheel axle in connexion with the arrangement of the markers, so that the position of all the measuring recesses in the feeder is indicated to the driver.

The inventors say: first, we *claim* the combination of the raising lever L, when arranged as described, with the marking wheel for the purposes set forth.

Second. The combination of the cranks on the axle of the marking wheel when arranged as described with the markers, whereby the exact position of the measuring recesses in the seed deliverer are indicated to the driver.

No. 22,228.—JARVIS CASE, of Bloomington, Ill.—*Improvement in Seed Planters*.—Patent dated December 7, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, dispensing with side rails and connecting the front and rear truck by the driver's seat, hinged to the front truck and rigidly secured to the rear one, substantially as described.

Second. I claim the so arranging of a reversible marker upon the front truck of the machine, that when planting the runner shall not touch the marker arm; but when said front truck is raised up to turn the machine around, the runner shall catch and raise up and hold up said marker, for the purpose and substantially as described.

Third. I claim in the construction of the runner the hollowing out for the marker arm, the forming of the seed ducts in the sides of the runners, and so inclining the straight edge thereof as that its heel shall be the lowest point, all as described, and for the purpose specified.

No. 22,438.—F. M. MARSHALL, of Seguin, Texas.—*Improvement in Seed Planters*.—Patent dated December 28, 1858.—This invention consists of a beam A, four and a half feet in length. At one and three-fourths foot from the front is attached underneath a gauge wheel B nine inches in diameter. The object of this wheel is to regulate the depth of the furrow made by the plough, said wheel being movable, and being raised or lowered by the screw and tap connecting it with the beam.

*Claim*.—The arrangement of perforated plates A<sup>1</sup> and B, beam A, gauge wheel B, bull tongue plough S, roller F, crank H, arm D, and handles K K, the whole being constructed for joint operation as set forth and described.

No. 20,014.—SAMUEL WOODRUFF, of Sparta, N. J.—*Improvement in Seed Planting Ploughs*.—Patent dated April 20, 1858.—This invention consists in the employment of a small box attached to the back of the hoe, provided with a valve and plunger, and used in connexion with a seed receptacle or sack, which is slung around the shoulders of the operator and made to communicate with the distributing device by a flexible tube.

The inventor says: I am aware that seed distributing devices have been attached to hoes, and arranged in various ways, in order that the



seed may be distributed, the holes made to receive it, and the seed covered at one operation, and I therefore do not claim separately any of the parts shown and described.

But I *claim* the box B, provided with the valve C, and plunger D, attached to the hoe, and used in connexion with the sack or receptacle G, placed on the operator, and communicating with the box B by means of the flexible tube E, the whole being arranged substantially as and for the purpose set forth.

No. 19,322.—THOMAS B. WHYTE, of Greenwich, N. Y.—*Improvement in Machines for Planting Potatoes*.—Patent dated February 9, 1858.—A little behind the centre of the frame X and upon it stands the hopper L, with its lower receptacle L<sup>2</sup>. The bottom of L<sup>2</sup> is closed with a slide F, which is a cutting or slicing apparatus. Against the rear of the hopper lies a board V, which is regulated by the hand-screw *x*.

*Claim*.—The arrangement of slide E, knife *e*, and adjustable board V, with hoppers L and L<sup>2</sup>, in manner and form and for the purpose set forth.

No. 19,869.—JESSE W. PELLETREAU, of East Moriches, N. Y.—*Improvement in Machines for Planting Potatoes*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The general arrangement of the hopper K, and automatic dropping apparatus, consisting of the spouts *l*, clappers *m*, wheel *n*, and blocks 9 9, in connexion with the opening and covering ploughs, substantially as specified, whereby the potatoes or pieces of potato, being fed into the machine by hand, are not injured, and all the advantages of hand planting are attained without the laborious work connected therewith, as specified.

No. 19,163.—THOMAS THOMPSON, of Thompsonville, N. C.—*Improvement in Ploughs*.—Patent dated January 19, 1858.—B is the beam curving downward and secured to the land-side by the bolts *a a*. L is the land-side, cast with a face-piece or standard *f*, which is secured to the beam by a bolt *b*, the mould-board M being secured to this face-piece. The land-side has a small depending ear *e* passing inside the bar C, and secured thereto by a bolt *c*. The share is drawn tight against the mould-board and land-side by the rod *r* passing up inside of the face-piece or standard and secured to the top of the beam. H H are handles, curved at their lower extremities, and made to embrace the curve of the stock.

The inventor says: I make no claim to the curved beam, nor do I claim an adjustment or handles for regulating the depth of ploughing.

But I *claim* the curved beam B and land-side L, having the depending ear *e* and upright standard *f* secured to the beam as described, in combination with the opposite curved adjustable handles H H, as constituting an improved construction of plough.

No. 19,125.—SAMUEL R. BORUM and WILLIAM McCLEAN of Norfolk, Va.—*Improvement in Ploughs*.—Patent dated January 19, 1858.—D represents a standard which transversely is of V form. This standard gradually expands from its upper to its lower end so as to form mould-



boards ; shares *c* are attached to the lower ends of the mould-boards, one to each. The standard is constructed of cast-iron, and its upper end is secured to the beam *A*.

The inventors say : We do not claim the invention of double mould-boards, for we know they are old.

But to the best of our knowledge and belief, it is new to make the standard transversely of V-shaped form, gradually expanding from the upper to the lower part, the said peculiarly-shaped standard being combined with the horn or projection *b* of the land-side *C*<sup>1</sup>, in the manner set forth.

We *claim* the arrangement of the peculiarly-formed V-shaped standard *D*, with the horn or projection *b* of the land-side *C*<sup>1</sup> and its wings *B*<sup>1</sup>, as shown and described.

No. 19,179.—JOSEPH BANKS, of Dadeville, Alabama.—*Improvement in Ploughs*.—Patent dated January 26th, 1858.—Fig. 1 shows the form of iron bars *F G* and *H*, the hind bar *F*, being straight, and the two forward bars *G H*, being curved. The upper ends of these bars are secured to the under side of the beam *A*, respectively by bolts *g h i*. The two rear bars *F G*, are united by a rivet near their lower ends, which are sharpened as shown. The lower end of the front bar *H*, terminates at some distance above the other two bars, and being blunt serves as a shoulder for the rear end of the point *L*, to bear against. A rivet passes through all three of the bars near the lower end of the front bar *H*.

*Claim*.—The combination of the triple-branched colter *I*, bars *F G H*, and point *L*, constructed and arranged as specified.

No. 19,262.—JOSEPH O. RAMAGE, of La Fayette, Ala.—*Improvement in Ploughs*.—Patent dated February 2, 1858.—This improvement consists in a peculiar manner of securing the plough-point to the foot piece. *H* is the handle, *B* the beam, curving so as to form the stock; to the lower end of the stock is attached the foot piece *a* by a pin *b* upon which it can turn, *S* is a sub-soil point, having a slot *e* in rear, *R* is the root-cutter having a point *F*, which enters a cavity in the stock. The sub-soil point is laid upon the face of the foot piece and allowed to project over the point any desired distance, bolt *h* of the root-cutter then passes through slot *e* and opening *i* between the stock and foot piece. Nut *n* is then tightened and secures the point *S* to the foot piece; by loosening nut *n* the pressure of the lower face of the root-cutter *R* is removed.

*Claim*.—Connecting the piece *R*, with the stock by point and cavity as shown at *g*, and passing a bolt on the bottom of the same through opening *i*, and the slot of the plough-point, whereby the said piece is made to perform the functions of root-cutter, brace, and securer of the plough-point, substantially as set forth.

No. 19,321.—GEORGE WATT, of Richmond, Va.—*Improvement in Ploughs*.—Patent dated February 9, 1858.—The nature of this invention will be understood by examining the claim and engravings.

The inventor says : I do not claim of itself the inclination of the



land-side towards the mould-board, for the purpose of leaving soil overhanging the furrow, as such device broadly considered is not new.

But I *claim* constructing mould-board and land-side of cylindrical surfaces of equal diameters, intersecting along the cutting-edge of the plough, in combination with the curved standard S, the whole being constructed substantially as and for the purposes set forth.

No. 19,388.—MARSHALL TURLEY, of Galesburgh, Ill.—*Improvement in Ploughs*.—Patent dated February 16, 1858.—This invention consists in the device employed for cutting the stocks, weeds, &c., for gathering them in rows, so as to be covered by the furrow-slice, and the adjustment of the plough in making a wider or narrower furrow. A is the larger and B the smaller supporting wheel, both arranged on an axle C, so that the former can run in the furrow previously turned and the latter on the land. D is the tongue, by which the plough is guided. It is placed in or near the line of resistance of the plough, which may be on one side of the centre of the axle C, a brace E extends from the tongue to the axle of the plough, to cause it to follow the tongue.

The inventor says: I *claim* 1st. The combination of the beams, plough-shank, lever, and brace or adjusting rod, arranged behind the axle, substantially as set forth.

2d. The combination of the wheel B, for holding, with the cutter *m*, for cutting the stalks, substantially as described.

3d. I claim the combination of the weed-gatherer *n*, with the plough or ploughs, when arranged and operating as set forth.

No. 19,391.—WILLIAM W. VAN LOAN, of Catskill, N. Y.—*Improvement in Ploughs*.—Patent dated February 16, 1858.—The cutter or blade *a* is fixed firmly to the land-side, and is fixed at the depth which will be required by different soils.

The inventor says: I am aware that pulverizing blades have been attached to the mould-board of ploughs and also placed in rear of cultivators; but neither of these can perform the function of my under-cutters, and I lay no claim to such devices.

But I *claim* the attachment of one or more horizontal cutters to the land-side of the plough, whereby the land is cut horizontally below the surface, so that it may be turned over by the mould-board during the succeeding cut with greater ease, substantially as set forth.

No. 19,401.—ELIJAH H. BLOODGOOD, of Thomaston, Ga.—*Improvement in Ploughs*.—Patent dated February 16, 1858.—Attached to the beam Z and its handles O are the double feet L L. Shank *a* of the feet passes through the opening of the beam Z at A, and brace C is secured to the left outside of the beam at B, and brace D is secured to the right hand outside of the beam at B by bolts passing through the beam Z at holes A and B, and laps applied to fasten them.

*Claim*.—The combination of beam Z and its handles O, with the double feet L L and braces C D, the whole being arranged in the manner and for the purpose set forth.

No. 19,455.—TURNER SANFORD, of Redding Ridge, Conn.—*Improvement in Ploughs*.—Patent dated February 23, 1858.—This invention



consists in the construction of the plough whereby the beam is rendered susceptible of being adjusted, both vertically and laterally, and secured at any desired point, for the purpose of regulating the depth and width of the furrow.

*Claim.*—The bars D D, F F, in connexion with the metallic rods G H and braces I I; the whole being constructed and arranged relatively with each, and the standard C, land side A, and mould-board B, as shown, and for the purpose set forth.

No. 19,563.—DAVID HOKE, of Byhalia, Miss.—*Improvement in Ploughs.*—Patent dated March 9, 1858.—The beam A has handles B B. The stock C is a simple bar, with a horizontal bar *a*, and is secured to the under side of the beam by means of the bolts *b b*. A mortise *d* is formed in the flanch *a*, and a corresponding mortise through the beam, to receive the coulter D, which is held in the beam by a bolt *k* passing through any one of a set of holes *g g*. The coulter is held firmly back against the point of the stock by means of the wedge E.

The inventor says: I *claim* the arrangement of the coulter D, in combination with the stock C and beam A, substantially in the manner and for the purpose specified.

I also claim the mode of constructing the stock with a long horizontal flanch *a*, by which it is not only secured to the beam, but by which the coulter is held back against the foot of the stock, substantially as described.

No. 19,658.—GREY UTLEY, of Louisburg, N. C.—*Improvement in Ploughs.*—Patent dated March 16, 1858.—B is the beam, H H are the handles, and S the stock. The stock is connected with the beam by the bolt *a*, about which it turns as brace *b* is moved by the nuts *c c*, securing it to the beam. The mould-board M is formed with a flange *f* having slots *e e*. Bolts *i i* pass through the stock and secure the mould-board thereto. Opposite to the mould-board, and forming part of the stock, is a secondary land side L<sup>1</sup> for resisting the pressure against the turning portion of the plough.

*Claim.*—The combination of the vertically adjustable mould-board M with the sub-soil point and the two land sides L L<sup>1</sup>, substantially as and for the purpose set forth.

No. 19,725.—DANIEL L. TILTON, of Mt. Carmel, Ill.—*Improvement in Ploughs.*—Patent dated March 23, 1858.—In the engravings, A is the beam, B the mould-board, J J are tines or prongs, journalled perpendicularly in the beam in front of the mould-board, and depending obliquely or in curved form from the under side of the beam to near the ends, where they take nearly a vertical direction.

*Claim.*—The construction and arrangement, substantially as described, of the tines J, operating in the manner and for the purposes explained.

No. 19,706.—THOMAS MCCONAUGHY, of Burnsville, Ala.—*Improvement in Ploughs.*—Patent dated March 23, 1858.—The claim and engravings will explain the nature of this invention.



*Claim.*—Extending the piece P, to which the point is secured, rearwards a distance nearly equal to its height, and giving it increasing lower flanges at bottom, said piece being formed with thick bounding edges, and a thin plate filling the intermediate space, substantially as and for the purposes set forth.

No. 19,886.—JOSHUA C. WILLIAMSON, of Washington, Ga.—*Improvement in Ploughs.*—Patent dated April 6, 1858.—This plough, exclusive of the stock, consists of but three pieces, viz: the plough iron E, brace F, and shoe, cutter, or shovel G, and the invention consists in the peculiar device employed for securing the cutter to the plough iron and brace.

*Claim.*—The combination of the plow iron E, brace F, and cutter or share G, when formed and united together, and to the beam, in the manner and for the purpose set forth.

No. 19,878.—THADDEUS S. SCOVILLE, of Elmira, N. Y.—*Improvement in Ploughs.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim making the eyes of the spur-wheels larger than the journals on which they turn.

Nor do I claim the simple use of washers or of clearing-teeth.

But I *claim* the combined arrangement of the loosely turning spur-wheels D D, the separating washers *f f*, and the clearing-teeth *i i*, acting upon or close to said washers, substantially as specified, so that the eccentric movement of the said spur-wheels, together with the said closely-fitting washers and clearing-teeth, will effectually keep the implement free from impediment.

No. 19,909.—THOMAS E. C. BRINLY, of Simpsonville, Ky.—*Improvement in Ploughs.*—Patent dated April 13, 1858.—The nature of this invention consists in the cutting out or scolloping the hind part of the mould-board, as represented by letter A. The part C is a piece of cast iron for screwing the hook B to the beam of the plough and adjusting it; the holes in the hook are for the purpose of raising and lowering it to suit the depths of the furrow.

*Claim.*—The grass-hook B and its plate C, when constructed, arranged, and operated in relation to the beam and mould-board of the plough, substantially in the manner and for the purpose set forth.

No. 20,269.—JOHN M. HALL, of Warrenton, Ga.—*Improvement in Ploughs.*—Patent dated May 18, 1858.—The nature of this invention consists in forming a plough which, by the combination of the parts, shall produce a plough that will be capable of performing all the work ever required, either as a common plough, sub-soil, opening-sweep, or hill-side plough, or any two of them combined, by simply arranging the parts as the nature of the work requires.

*Claim.*—The construction, arrangement, and combination of the body of the implement and its movable parts described, whereby it is readily adapted to properly receive, in turn, the several parts employed for performing the various modes of cultivation specified.



No. 20,659.—HENRY M. PLATT, of Darien, Conn.—*Improvement in Ploughs*.—Patent dated June 22, 1858.—The nature of this invention consists in causing a four-winged and screw-formed share A to revolve as it passes through the soil, and thus pulverize it for the purpose of agriculture.

*Claim*.—The arrangement of the screw-shaped ploughshare A, having wings E, with boxes H and F, wheels I, and roller D ; the whole being constructed and operating conjointly in the manner and for the purpose set forth.

No. 20,633.—ALEXANDER DICKSON, of Hillsboro', N. C.—*Improvement in Ploughs*.—Patent dated June 22, 1858.—The object of this invention is to render an ordinary surface-plough available, when necessary, as a sub-soil plough. The invention consists in the use of a supplemental land side F and a coulter G attached to the plough.

*Claim*.—The supplemental land side F and coulter G, arranged and applied to the plough as shown, and for the purpose set forth.

No. 20,790.—J. P. HARRIS, of Byhalia, Miss.—*Improvement in Ploughs*.—Patent dated July 6, 1858.—To the lower end of the stock A is secured a foot B, made in a single piece of cast iron or sheet iron, in the form of a hollow shell, fitting round the front side of the stock, the sides or wings thereof curving backward and outward on either side of the stock A, the sole *b* covering the angle between the said sides at the bottom. The sole inclines upward as it extends back, so that a wedge-shaped face is formed in the lower extremity of the foot, which receives the end *c* of the stock.

*Claim*.—The hollow foot B, formed and arranged for the reception of the stock A and point C, substantially as specified.

No. 10,935.—G. D. COLTON, of Galesburg, Ill.—*Improvement in Ploughs*.—Patent dated July 20, 1858.—D represents a back cross-bar of the frame A ; this bar is pivoted or secured by means of a nut and screw at the point *p* at one side of the axle C, and may be adjusted to different positions by removing the screw at *p* and placing it in the holes *g g*. The frame is secured at the other side of the axle by means of the strap of metal marked *n* which passes around the axle. This strap is made sufficiently full to allow of the frame playing up and down, said frame following of its own weight upon the axle, but is elevated by means of the windlass G and cord *m*. The windlass G and seat F are both supported by means of the two uprights *r r* which set in the end of the axle.

The inventor says: I *claim* arranging the frame B secured to the axle C, as described, with the strap *n*, cord *m*, and windlass G, the several parts being operated in the manner and for the purpose set forth. Also this in arrangement with the revolving coulters and a double-pointed beam, all being constructed and operated substantially as described.

No. 20,968.—WALTER WARREN, of Penn Yan, N. Y.—*Improvement in Ploughs*.—Patent dated July 20, 1858.—The beam and mould-



board are held together by bolts passing through the parts E and F and G; the bolts hold the parts together, but are not needed to resist the draught applied to the beam; the peculiar joint of these parts increases the firmness as the draught is increased. I I are the handles, of ordinary construction; the right one is attached to B, the left to the hind part of beam A, which is extended upward to receive and support the handle.

*Claim.*—The described arrangement of beam A and its portion G with the mould-board B and its land side portions E F; the whole being constructed as and for the purpose set forth.

No. 20,984.—SAMUEL R. BLIVEN, of McDonough, N. Y.—*Improvement in Ploughs.*—Patent dated July 27, 1858.—There are some ploughs constructed so that certain parts will reverse and thus turn the sod on either side of the implement, as occasion may require. This is an improvement in one of these; it consists in the employment of two stationary mould-boards in connexion with a reversible share so arranged as to attain the desired end.

The inventor says: I do not claim broadly a reversible share, for they have been previously used, although I am not aware that they have been arranged like the one shown.

I am also aware that double mould-boards have been used; I therefore do not claim such.

But I *claim* the reversible share E attached to the shaft F and connected with the lever G, or its equivalent, in combination with the two mould-boards B B<sup>1</sup>; the parts being arranged relatively with each other, as and for the purpose set forth.

No. 21,167.—JOSEPH JONES, of New Castle, Del., assignor to EDMUND JONES and JOSEPH JONES, Jr., of said New Castle.—*Improvement in Ploughs.*—Patent dated August 10, 1858.—The mode of working these improved ploughs is thus described: The workman, standing on the frame A, lays hold with his left hand on the lever F, and on the lever H with his right. On depressing lever F and raising lever H two of the ploughs will be raised from the soil, independent of the others. Should it be required that the whole gang be raised simultaneously, then the connecting pinion *h* is brought in mesh with *ff*, and all the racks will be operated on at once.

*Claim.*—The combination of the described gear and levers, when constructed and arranged for operation conjointly, in the manner as and for the purposes set forth.

No. 21,182.—WILLIAM BLACK, of Manchester, Pa.—*Improvement in Ploughs.*—Patent dated August 17, 1858.—The nature of this invention consists in attaching to and using with the ploughs that are used for surface furrow ploughing, an adjustable revolving or rotary sub-soil digger, to dig and loosen the sub-soil that is under the bottom of the furrow made by the plough at the same time and by the same team that the surface of the ploughing is done; which digger is to have its axis horizontal at or near a right angle to the land side, and its axle in journal bearings that will yield upward if the digger should strike



a stone or other hard substance in the subsoil. This digger is to rotate behind the mould-board in the rear of the land side of the plough, so as to dig and loosen the subsoil immediately after the plough has turned the furrow slice of surface soil out of the way of the digger.

The inventor says: I do not claim either of the individual parts thereof, nor do I claim the precise form of the digger teeth or picks shown and described, as similar ones may be seen on a patent granted E. F. Berry, February 19, 1856.

Nor do I wish to be understood as limiting my claim to the precise arrangement shown and described of the springs E, joints 6, rods 2 and 3, with the plough P and digger H, as that is susceptible of various other modifications.

But I *claim* the combining with the plough P the adjustable rotary digger H, having sharp teeth or picks T, substantially as described, for the purpose set forth.

No. 21,423.—SAMUEL HULBERT, of Ogdensburg, N. Y.—*Improvement in Ploughs*.—Patent dated September 7, 1858.—The nature of this invention consists in having a pipe at or near the front end of the beam in which to place a spring, and pass a bolt through it to the rear end of the spring by which to draw the plough.

The inventor says: I do not claim any of the parts, separately considered.

But I *claim* the adjustable beam F, slot D, pivot C, spring clevis E, and adjustable handle G, combined, arranged, and operating as set forth and described.

No. 21,598.—DAVID COCKLEY, of Lancaster, Pa.—*Improvement in Ploughs*.—Patent dated September 28, 1858.—The nature of this invention consists in attaching the mould-board, the cutter, the land side, point, and share by means of dovetailed clutches and one short bolt underneath, for the purpose of preventing holes being made through the cast iron mould-board, so as to allow the mould-board to be chilled on its whole surface. Thus making it susceptible of a higher polish, and consequently of lighter draught and greater durability.

The inventor says: I *claim* the adjustable cutter-wheel N, cleaner W, and devices V X Y Z, when arranged with the regulator C, in combination with the beam F, and the whole constructed for operation conjointly, as and for the purposes set forth.

I also claim the mode of arranging and fastening the point *c*, share *d*, and land side with its cutter *j*, so as to hold them with the short screw *k* and plate *l*, in combination with the mould-board *h* and beam F, substantially as described.

No. 21,630.—B. B. SCOFIELD, of Andover, Illinois.—*Improvement in Ploughs*.—Patent dated September 28, 1858.—D represents a mould-board, and E a land side. These parts are of the usual construction. The standard F, however, instead of being attached to the beam by a nut or key, as usual, passes up through the beam, and has a rack *e* formed at one side of it, the rack being slightly curved, forming a segment of a circle, of which the pivot *f* is the centre. The said pivot



connects a bar *g* to the back part of the beam *A*, the lower end of the said bar being attached to the back end of the land side *E*. *G* is a pinion, the axis of which is fitted in a suitable upright *h* on the beam *A*. The axis of this pinion has a lever *H* attached to it, and to the beam *A* a semi-circular bar *I* is secured, to which the lever *H* may be attached at any desired point by means of a clamp *J*. The pinion *G* gears with the rack *e*.

*Claim.*—The arrangement and combination of the pivoted bar *g*, share *D*, land side *E*, standard *F*, curved rack *e*, pinion *G*, and lever *H*, as and for the purposes shown and described.

No. 21,824.—JOHN DICKSON, of New Castle, Pa.—*Improvement in Ploughs*.—Patent dated October 19, 1858.—This invention consists in the use of a double land side, or land sides, for increasing the size and weight of the plough, the share being moved when the plough is altered by the removal or addition of the double land side and a smaller or larger share attached as the decreased or increased size of the plough requires.

*Claim.*—The use of a double movable land side for increasing the size and weight of the plough, in the manner described.

No. 21,846.—WILLIAM REANY, of Berzelia, Ga.—*Improvement in Ploughs*.—Patent dated October 19, 1858.—This invention consists in an improved mode of changing the form of a plough so as to adapt it to different soils, and to shallow or sub-soil ploughing at pleasure.

The inventor says: I *claim*, first, the mode of varying the form of the plough by the use of the adjustable coulters, figs. 3 and 4, the latter being provided with the sub-soiler *E*, and the several parts constructed and arranged for operation, substantially as set forth.

Second. I claim the use of the wedge *C*, in combination with the mould-board, for adjusting the entire front part of the mould-board to correspond with the adjustment of the coulters, as described.

No. 21,953.—JOHN GEHR, of College of St. James, Maryland.—*Improvement in Ploughs*.—Patent dated November 2, 1858.—The nature of this invention consists in certain devices for keeping clear the mould-board of the plough. As the plough is drawn along the roller is made to revolve, imparting a side motion to the dirt and other matter coming in contact with it, thereby keeping the mould-board from becoming foul. The flange on the upper part of the roller prevents any matter from entering between the upper head of the roller and the plough beam.

*Claim.*—The hollow corrugated roller *a*, in combination with the mould-board *c*, brace *g*, and guard *f*; the whole being constructed and arranged substantially in the manner and for the purposes set forth.

No. 21,975.—ALLEN ALBERT McMAHEN, of Oxford, Mississippi.—*Improvement in Ploughs*.—Patent dated November 2, 1858.—On the outer side of the mould-board there is a lug or dead eye *6*, through which and one of the holes in the brace *G* a bolt *7* passes to hold the mould-board to the coulter. Thus the mould-board may be set up or



down to suit the depth of ploughing that is to be done for the time being.

*Claim.*—In combination with a coulter, having a brace and adjustable openings therein, a mould-board whose shank is made adjustable in the beam, so that said mould-board may be adjusted to the coulter and in the beam, as described; the whole being combined and arranged in the manner and for the purpose set forth.

No. 22,013.—JOHN M. BURKE, of Dansville, New York.—*Improvement in Ploughs.*—Patent dated November 9, 1858.—This invention consists in depressing the rear end of the mould-board, and curving the depression inward, in order to give a smooth finish to the surface of the earth that is thrown upward and outward by the mould-board to form the hill.

*Claim.*—Depressing and bending inward the rear and lower edge *f* of the mould-board, as described, for the purpose set forth.

No. 22,332.—THOMAS WIARD, of Louisville, Kentucky, assignor to G. W. PITKEN, H. W. PITKEN, and W. P. WIARD, of said Louisville.—*Improvement in Ploughs.*—Patent dated December 14, 1858.—The inventor says: I am aware that ploughs and cultivators have been so made as to be capable of a change of mould-boards. This I do not lay any claim to, my invention pertaining to the manner in which I construct the standard, with one rigid and one movable wing, for the purpose of making said standard and wings susceptible of receiving the several changes of points and mould-boards which are ordinarily used on a farm; thus making one stocked standard serve the purpose of holding the several varieties of ploughs used.

In naming what he claims as new, the inventor says: I *claim* the standard A, with its permanent wing B, and recesses or shoulders for the reception of the removable wing I, constructed and arranged substantially in the manner and for the purpose set forth.

I also claim, in combination with the standard A, constructed as set forth, the adjustable cutting and guiding wheel L, so that said wheel may be thrown into or out of action, as the circumstances of the case may require, and as described.

I also claim the uniting of the handles, beam, and standard together, by means of the pockets *a*, dowels *e*, recesses *f*, and bolt *h*, substantially in the manner described.

No. 22,389.—REED VINCENT, of Rockton, Ill.—*Improvement in Ploughs.*—Patent dated December 21, 1858.—A is a convex standard, B a perpendicular brace, C a curved handle secured by a bolt to perpendicular brace B; D having a horizontal brace extending from convex standard A to brace B, connecting and supporting the same; letter E being a bolt securing the standard to the side of the beam.

*Claim.*—The combination of the convex standard A, the braces B D, and the mould-board, when arranged in connexion with the beam and bent handles C, as described and represented, and for the purpose set forth.



No. 20,689.—MOSES BARROWMAN, of Buffalo, New York.—*Improvement in Drain Ploughs*.—Patent dated June 29, 1858.—The nature of this invention relates to the construction of a centre piece A, which serves as a main frame or support for other parts of the plough, and in the combination and arrangement of the several parts.

The inventor says: I do not claim either of the bearing or adjustable wheels described, nor the arms, levers, or shafts by which they are supported, when separately considered.

Nor do I claim their combination or arrangement differently than as set forth.

Neither do I claim the combination of the cutter or cutters with the winding trough or circular conveyor, as that has been done before.

But I *claim*, first, the centre piece A, for the purpose of a main frame or support for the other parts of the plough, substantially as set forth.

Second. I claim the arrangement and combination of the adjustable wheels G G, the arms H H, shaft K, lever J, and segment I, relatively to each other and the plough, as described.

No. 10,077.—MYRTILLUS A. CRAVATH, of Loda, Ill.—*Improvement in Gang Ploughs*.—Patent dated January 12, 1858.—The peculiarities of this invention consist in an arrangement of gauge wheels, whereby they are kept entirely clear of the newly ploughed ground; a mode of attaching the ploughs to the frame so as to facilitate their being thrown out of and into the ground, and retained in either position, and in an approved construction of land side beam for adjustment of the depth of ploughing.

The inventor says: I *claim* as new, and of my invention, first, the method, substantially as described, of attaching the ploughs to the frame, whereby they are made capable of being thrown out of and into action by partial rotation on their axes, as exhibited.

Second. In combination with the above, the described arrangement of the wheels E F G, whereby the chief weight of the implement devolves upon the wheels E F, which run on the level bottom of the furrow.

Third. The described construction and arrangement of the jointed land side beam A A<sup>1</sup>, in combination with the lever *t* and *u* rack, or equivalent devices, operating substantially as set forth.

No. 19,652.—LEWIS ROACH, of Covington, Ky.—*Improvement in Gang Ploughs*.—Patent dated March 16, 1858.—A is the frame, B B<sup>1</sup> are ground wheels connected and rotating in conjunction with the axle *b*. E is the rotating plough shaft journaled in swinging stirrups D D<sup>1</sup>, the hinge attachments of which to the frame A form, also, the axis of carrier wheels I, which gear the cog-wheels J on the axle *b*, and also the pinion H on the plough shaft E. L L are wheels running loosely on the plough shaft E. The ploughs K K<sup>1</sup> are bolted to splines G G<sup>1</sup> of the represented spiral form, which are attached to the arms F *f*, on the shaft E.

*Claim*.—The described arrangement of spiral splines G, (to which the ploughs are attached,) and adjustable arms F *f*, in combination with the gravitating shaft E and the gauge wheels L.



No. 20,122.—G. W. N. YOST, of Cincinnati, Ohio.—*Improvement in Gang Ploughs*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the torsion spring above described, in combination with the ploughshare, for the purpose of allowing a single share to swing backward in passing stones, and then automatically to replace itself in working position, thus avoiding the breaking of the plough or stopping of the team, substantially as set forth.

Second. The use of the team guide for managing the team, so as to obviate the necessity of employing many drivers, substantially as described.

Third. I claim the use of the team shade in combination with the team guide for sheltering the team from the heat of the sun or from rain, substantially as set forth.

No. 20,342—JESSE FRYE, of Mendota, Illinois.—*Improvement in Gang Ploughs*.—Patent dated May 25, 1858.—Ante dated March 18, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the attachment of the tongues to the forward and rearward plough-stocks, and the connexions between the various plough-stocks, so that when the team is turned, the plough shall be turned so as to point towards a common centre, substantially in the manner and for the purpose described.

I also claim the connexion of the forward furrow wheel with the tongue by means of the curved slotted arm R and bolt I, in combination with the cranks and connecting rods between the wheel shafts, so that when the team is turned, the forward wheels shall be turned in the same direction, and the rear furrow wheel shall be made to track the forward wheels, substantially in the manner and for the purpose set forth.

I also claim hanging the hinged coulter *t* to the rear of the front furrow wheel by means of a chain, which, when the team is turned, will raise said coulter out of the furrow, substantially in the manner and for the purpose set forth.

No. 20,647.—DON C. MATTESON, of Stockton California.—*Improvement in Gang Ploughs*.—Patent dated June 22, 1858.—The false beam N has attached to the end of it a goose-neck G. The lever *i* by means of chain *r* is to throw the plows out of the ground, and also gauge the depth of the furrow by raising or lowering, and going from field to field, by means of a catch L, axletree *w* with tongues 7, attached to the right side.

*Claim*.—The arrangement, as described, of the false beam N, goose-neck G, axle *w*, lever *i*, catch L, and the system of ploughs attached to their frame, as set forth; the whole being constructed and operating substantially as and for the purposes specified.

No. 19,496.—SAMUEL DENNIS, jr., of Jasper, New York.—*Improvement in Hill-side Ploughs*.—Patent dated March 2, 1858.—In this improvement two mould-boards F and shares G are used—one to turn a furrow to the right and the other for turning a furrow to the left hand



side. These are so connected by gearing that when one is lowered into its operating position the other is raised so as to be clear of the land.

*Claim.*—The combination of two mould-boards and shares with a single stationary land side in the construction of a hill-side plough, substantially as described for the purpose stated.

No. 20,812.—MODEST MERK, of Rochester, New York.—*Improvement in Hill-side Ploughs.*—Patent dated July 6, 1858.—This improvement consists in the peculiar manner of constructing and arranging the mold board.

A is the draught beam, B the handles, C the coulter shave, and D the subsidiary mould-board; E is the furrow bar occupying the position of the ordinary land side, and F F the frame, constructed of iron and firmly bolted to the bar E, and connecting it with the wood work.

*Claim.*—The reversible convex winged coulter share C, constructed as described, in combination with the plane subsidiary mould-board D, connecting arm J, and furrow bar E, arranged and operating substantially as and for the purpose set forth.

No. 21,306.—HENRY S. AKINS, of Speedsville, N. Y.—*Improvement in Hill-side Ploughs.*—Patent dated August 31, 1858.—In this invention the act of moving the hook which fastens the mould-board B from one side to the other reverses both the coulter F and chain clevis. In reversing the plough the hook should be unhooked from the mould-board, and the mould-board turned down, as shown in the engravings, and raised up on the side opposite to that which it occupied before.

The hook L should then be drawn over to the side on which the mould-board is, and hooked in the mould-board. The plough will then be completely reversed and in the position to turn a furrow in the opposite direction to the one last turned.

The inventor says: I do not claim, broadly, the combination of the reversible mould-board with the adjustable coulter.

But I *claim*, first, the reversible mould-board and coulter, in combination with a reversible clevis, in the manner and for the purposes substantially as described.

Second. Attaching the hook L to the lever I, which operates the coulter E, thereby making the operation of reversing the hook, adjusting the coulter, and fastening both the mould-board and coulter in their respective positions by one and the same hook, and at one operation, as set forth.

Third. The reversible chain clevis O, for the purpose of producing reversible side draught, when connected and operated in the manner substantially as described.

No. 21,547.—THOMAS E. C. BRINLEY, of Simpsonville, Kentucky.—*Improved Plough Press and Drill.*—Patent dated September 21, 1858.—The operation of this machine is as follows: The follower E is detached from the screw B by removing the screwbolts s and one of the bars e. Then the follower and also the bed D of the press are moved, and the drill G is inserted, as shown in the engravings. The plough plate is



then placed upon the lower cross-bar of the frame A, and the requisite holes are bored by the drill G, which may be worked by hand or any other power.

After a suitable number of plates have been bored, the drill is removed and the bed of the press, and also the follower, are put in place. The bored plates are then inserted into the press, and by means of the screw B the follower is brought down, and thus the plates are warped of the desired form.

*Claim.*—The above described press, in combination with the drill for pressing and drilling the mould-boards of ploughs; the whole being constructed, arranged, and operated substantially as set forth.

No. 19,412.—PAUL DENNIS, of Bemus' Heights, N. Y.—*Improvement in Shovel Ploughs.*—Patent dated February 23, 1858.—This is a combination of a peculiarly constructed mould-board B, an adjustable gauge roller F, and a point or share E, made separate from the mould-board, and attached to it in such a manner that the share and mould-board may be made to penetrate the soil at a greater or less depth, as may be desired. The point or share can be readily removed from the mould-board to be ground or replaced by a new one. The soil is made to pass over the mould-board into the furrow, so that the surface will be left in a mellow but level state, with all the weeds, grass, &c., cut up.

*Claim.*—The bar A and mould-board B E, in combination with the adjustable rollers F; the whole being constructed and arranged substantially as and for the purpose set forth.

No. 19,427.—PEIRCE KLINGLE, Linnaen Hill, D. C.—*Improvement in Steam Ploughs.*—Patent dated February 23, 1858.—To each end of the frame E F F E is attached the ploughs P and P, hinging at E F and F E. The bearing wheels B and B are placed within the frame in the centre of the machine. The boiler A is placed immediately over the bearing wheels. At both ends of the machine, in front of the point of each plough, are the steering wheels D D, working in the ends of the curved frames H and H, which project from the main floor over and beyond each plough.

*Claim.*—The combination of the driving wheels B B and ploughs P P with the steering wheels D D; the whole being constructed, arranged, and operated substantially in the manner and for the purpose set forth.

No. 21,661.—JAMES W. EVANS, of New York, N. Y.—*Improvement in Steam Plough.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the combination and arrangement of the main shaft G, and cranks H I, forming part thereof, with the main axle E and driving wheels D, by means of screw shaft M and the bevel K and L and the screw thread N upon the axle, so that by the action of the piston rod 15, attached to crank H, the reciprocating action is communicated to the ploughs Y Y, and at the same time the machine is moved forward in due proportion to the stroke of the ploughs



by the rotation of wheels D, and thereby cutting a continuous furrow by a rectilinear and direct thrust of the plough or ploughs.

Second. The construction and arrangement of the supports or guide pieces P P, the pairs of vertical rods Q Q Q<sup>1</sup> Q<sup>1</sup>, operating by means of the eccentric V, and the lever and arm T W, in the manner described, for guiding, securing, elevating and lowering the plough.

No. 19,215.—WILLIAM STODDARD, of Lowell, Mass.—*Improvement in Ploughing Machines*.—Patent dated January 26, 1858.—The nature of this invention consists in so constructing a series of ploughs X with adjustable gauge pulleys, connected to the mould-board thereof, for governing the depth of the furrow, and connecting these ploughs firmly to endless bands or chains, which are carried by, combined with, and connected to swinging arms and pulleys thereon in such a manner that the ploughs are moved to turn the furrows, and at the same time a constant yielding movement is given the ploughs, while at the same time the ploughs are governed to the required depth, and to an uniform depth, while they are operated to turn the furrow at right angles with the machine.

*Claim*.—Constructing the ploughs X, with an adjustable depth gauge e and S attached to the mould-board thereof, in the manner described, when such ploughs are connected (for operation) to an endless chain or band, in combination with the flexible arms J, which carries the ploughs X and bands W, essentially in the manner and for the purposes fully set forth and described.

No. 19,189.—JOSEPH W. FAWKES, of Christiana, Pa.—*Improvement in Machines for Ploughing*.—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The employment of the barrel-shaped wheel or driver E, constructed with spurs K K, in the manner described, in combination with guiding wheels C C, and screw D, and segmental rack b, for the purpose of drawing the plough frame and ploughs described, in the manner set forth in the specification.

No. 20,300.—ABNER REEDER, of Wrightstown, Pa.—*Improvement in Apparatus for Cleaning the Coulters of Ploughs*.—Patent dated May 18, 1858.—When the ploughman finds that the coulter D has become clogged, he removes his hand from the handle B<sup>1</sup> of the plough, and placing it on the bent end of the rod E, forces the latter downwards until the prongs pass into the front of the coulter and clear away the accumulated soil; when the ploughman releases the rod the spiral spring h forces it back to its original position.

The inventor says: Without claiming broadly an apparatus under the control of the ploughman for clearing the coulter of ploughs, or the employment of a spring in connexion with such apparatus, I *claim* the spring sliding rod E, with any convenient number of prongs, when connected to, and arranged on, the plough, as and for the purpose set forth.



No. 19,849.—LEWIS W. HARRIS, of Waterville, N. Y.—*Improvement in Potato Diggers*.—Patent dated April 6, 1858.—In this invention a drag G is employed in connexion with a share E, so arranged that the hills or drills containing the potatoes or other roots will be opened by the share and the roots subjected to the action of the drag, whereby the earth will be levelled and the potatoes brought to the surface of the ground. This invention also consists in the use of supplementary shares F F, in connexion with the drag and opening share, whereby the sides of the hills or drills are pared off preparatory to the action of the central opening share and drag.

The inventor says: I *claim* the employment or use of a share E and drag G, so constructed and arranged to operate as and for the purposes shown and described.

I further claim, in combination with the share E and drag G, the supplementary shares F F, arranged to operate conjointly with the drag and opening share, as and for the purpose specified.

No. 20,949.—MALCOLM LITTLE, of Clyde, N. Y.—*Improvement in Machines for Digging Potatoes*.—Patent dated July 20, 1858.—This machine is composed essentially of a large, strong fork E, supported and drawn by means of a pair of wheels A A, axle B, and tongue or shafts C C. The fork is so constructed and arranged that the attendant can manage it in such a manner as to remove the potatoes from the ground with it while it is drawn along.

*Claim*.—The arrangement of the fork E within and in combination with the roller G, substantially in the manner and for the purpose specified.

No. 21,226.—LUKE WHITE, of Essex, Vt.—*Improvement in Machines for Digging Potatoes*.—Patent dated August 17, 1858.—The nature of this invention consists in constructing a machine by which potatoes may be dug from the ground, the earth taken up with them, separated from them, and the potatoes assorted at the same time.

*Claim*.—The combination of wheel *c*, having buckets on the outer edge thereof, with wheels *d* and separator *e*; the whole being constructed and arranged as and for the purpose set forth.

No. 21,225.—ALEXANDER WELLS, of Brooklyn, N. Y.—*Improvement in Machines for Digging Potatoes*.—Patent dated August 17, 1858.—This invention consists in the use of rotating spirally-flanched diggers, which are fitted in adjustable frames attached to the main frame of the machine, and operated by gearing from the wheels on which the main frame is mounted, in connexion with the serrated or toothed clearers; the whole being arranged so that potatoes, or other roots which are grown in hills or drills, may, as the machine is drawn along, be dug or brought to the surface of the ground, so that they may be easily gathered.

*Claim*.—The rotating spirally-flanched diggers *o*, in connexion with the clearers P, arranged for joint action, substantially as and for the purpose specified.



No. 21,413.—NATHANIEL GEAR, of Zanesville, Ohio.—*Improvement in Machines for Digging Potatoes*.—Patent dated September 7, 1858.—The nature of this invention relates more especially to the construction and operation of the scoop for digging, and the skeleton wheel for gathering and sifting out the earth, &c., previous to its delivering the potatoes in the receptacle behind it.

*Claim*.—In combination with the scoop for digging, the skeleton wheel K for gathering, carrying sifting, and delivering, the potatoes into the box or receiver, substantially as described and represented.

No. 21,664.—PETER FITZGERALD, of Constantina, Ohio.—*Improvement in Hay Rakes*.—Patent dated October 5, 1858.—The nature of this invention consists in raising the rake teeth of a carriage rake to empty them of the hay collected by them by the movement of the truck wheels of the machine, and in an arrangement of the parts by which the rake teeth are kept suspended above the ground when the machine is moved from place to place as may be required. Also, in an arrangement of parts by which the rake teeth are cleared of their gathered load and by which the winnow is compressed and packed into a smaller place and space.

*Claim*.—The combination of the shafts J and N, and the clutch M, and brake O, with the levers Q Q<sup>1</sup>, bar d, handle e, and cam T, for the purpose of putting the brake and clutch in operation, as described, and for the object set forth.

No. 21,712.—GEORGE WHITCOMB, of Port Chester, New York.—*Improvement in Hay Rakes*.—Patent dated October 5, 1858.—The operation of this machine is as follows: The driver is on his seat D, his feet being placed on the treadles J K, by operating which the rake teeth F may be raised and lowered; an arbitrary or positive movement may be given the rake in both movements. The head E, in working the joints c, serves to counterpoise the teeth F; for instance, in depressing the treadle J the head E is turned so that its centre of gravity will pass over to the front sides of the joints c, and the gravity of the head will therefore assist in elevating the teeth F. The driver may at any time assist the feet by operating the lever I with his hand.

The inventor says: I do not claim the wire teeth F attached to the head E, as shown, for such device mounted on wheels is in quite common use, and known as the wire-tooth horse rake.

But I *claim* the arrangement of the treadles J K, lever I, rake head E, arms G H, bar F, joints C, and adjustable rope L, substantially as and for the purposes set forth.

No. 21,698.—MATHIAS RAEZER, of Reading, Pa.—*Improvement in Hay Rakes*.—Patent dated October 5, 1858.—The operation of this machine is as follows: The spring teeth *f* proceed to gather the crop; the rake being full, the operator upon the seat *d* takes his foot off the foot pin *t*, and draws lever *e* towards him, which causes the spring teeth *f* to rise and the prongs *g* to drop down and discharge the contents of the teeth; the lever *e* is then pressed forward by means of the foot pin and the operation repeated.



*Claim.*—The spring bar *z*, the foot lever *e*, and the gearing *n n*, arranged and combined as described for the purpose set forth.

No. 19,420.—WILLIAM HORNING, of New Lebanon, Ohio.—*Improvement in Horse Rakes.*—Patent dated February 23, 1858.—A represents the wheels, B axle, C thills, D treadle, E rake-head, M teeth, O clearers, and G the platform. Projecting rearward from the rake-head are levers H which support the standards I, surmounted by a seat J.

*Claim.*—The arrangement of the seat J, standards I, and levers H, or substantially equivalent devices, in the described combination with the rake E N, for the purposes set forth.

No. 21,268.—MIRICK MORGAN, of Lancaster, Pa.—*Improvement in Horse Rakes.*—Patent dated August 24, 1858.—G are cast iron hinges or joints fastened to the roller eyes E by screw bolts and nuts H; I are the teeth which form the rake, and are made of rod iron and curved inwardly, the upper end J of each tooth being bent half round the centre of the hinge G, and then backward under the hinge so as to stiffen the tooth and prevent it from falling downward when the teeth are raised by the operation of the lever K.

*Claim.*—The arrangement of the axle G and cleavers O with teeth I, having curved ends J, hinges G, and roller E; the whole being constructed for joint operation, as and for the purpose set forth.

No. 21,358.—L. H. PARSON and GEORGE HOUSTON, of Middletown, N. Y.—*Improvement in Horse Rakes.*—Patent dated August 31, 1858. The operation of this machine is as follows: As the machine is drawn along, the teeth *h* collect the grass or grain, as usual; and when the rake is full the driver on seat D draws back the lever G, and the section F, in consequence of gearing into the tooth-ring *d*, will turn the head E, and the teeth *h* will be raised backward and the grain or grass discharged therefrom. The teeth *h* are lowered by throwing forward the lever G. The rods I throw aside a portion of the gravel discharged by the rake, so that the wheels may pass through the gravel without threshing out the grain.

*Claim.*—The arrangement and combination of the rake E, toothed-sector F, toothed-ring *d*, supplemental springs *k*, and clearers I, substantially as and for the purposes set forth.

No. 22,235.—JOHN W. HADCOCK and PARKER WILCOX, of Norway, N. Y.—*Improvement in Horse Rakes.*—Patent dated December 7, 1858.—The nature of this invention consists in providing a shield or point of metal to rake-teeth which shall protect the said teeth from splintering or splitting, and also keep them from entering the ground.

*Claim.*—The arrangement of the rake-teeth D with the metal point or shield *c*, as and for the purpose set forth and described.

No. 22,232.—CHRISTIAN GARVER, of Londonderry, Pa.—*Improvement in Horse Rakes.*—Patent dated December 7, 1858.—The nature of this invention consists in the arrangement of a cross-piece or



cleaner A, having two parallel arms or stays B B bent at their insertion, or attachment to cross-piece A, at one end, and having oblong holes or openings *i* at their other end. These oblong holes are for the purpose of affording the requisite play in headed pin *o*, which keeps them in place while the rake is being raised in emptying.

*Claim.*—The arrangement of the cross-piece A, staples *f*, parallel arms B, slots *i*, and pins O, with rake J, in the manner and for the purpose specified.

No. 19,753.—ASAHEL COWLEY, of Harpersfield, N. Y.—*Improvement in Horse Hay-Rakes.*—Patent dated March 30, 1858.—In the engravings B B are thills; C board forming forward division of platform; D slanting notch in levers; E E head of rake; F F the teeth of rake; G G is the axle serving as fulcrum to levers; H H discharging-rods; I I are shanks connecting straps around head of separator, with levers; J J head of separator; K arm extending from operator to vibrator; M L L teeth of separator; N hand-rest; R R forward arms of levers; S S hind arms of levers. To unload the rake the foot is placed on the forward division of the platform and pressed suddenly down till it rests on the thills, where it is kept till the load is discharged.

*Claim.*—The described combination of a separator with a wheel rake, the whole being constructed, arranged, and operated in the manner and for the purpose as set forth.

No. 19,975.—NELSON E. ALLEN, of Trenton, Wisconsin.—*Improvement in Horse Hay-Rakes.*—Patent dated April 20, 1858.—This invention relates more especially to the mechanical connexions between the rake and the driving-wheel, so that the operator from his seat can release the rake and at the same movement throw it into gear with the driving-wheel, and thus give it a compulsory revolution on its journals or shaft; and by reversing said movement lock the rake and throw it out of gear, so that it may stand in proper position for raking into the windrow until again released.

The inventor says: I am aware that rakes have been held until released by the operator, but heretofore the rake-teeth, or their equivalents, must be in contact with the ground so that contact rotated them, and even then the rotation was not positively certain. I lay no claim to any such contrivance.

But I *claim* so connecting a lever H, which actuates the dog *c* with a clutch that gears with the driving-wheel D, as that one operation throws out the dog and throws in the clutch, and *vice versa*, which makes a positive and compulsory rotation of the rake by the means set forth and described.

No. 20,844.—JOHN F. FAUST, of Lebanon, Ohio, assignor to RICHARD M. ROSS, Philadelphia, Pa.—*Improvement in Horse Hay-Rakes.*—Patent dated July 6, 1858.—This invention consists in the combined arrangement of the parts with which the revolving rake is attached when being operated.

*Claim.*—The combined arrangement of the arms A<sup>1</sup> A<sup>1</sup>, rods B B, arms E E K K, and guide rod A A, as constructed and arranged with



the rake H and carriage, as represented, for operating the rake in the manner and for the purposes mentioned in the specification.

No. 19,687.—AARON F. FRENCH, of Franklin, Vt., assignor to GEORGE I. STANNARD, of St. Albans, Vt.—*Improved Binding Attachment to Reapers*.—Patent dated March 23, 1858.—A revolving rake is employed in this invention with stationary and curved rods, a band-holder and band-adjuster, so that the grain may be bound by an attendant as rapidly as it is cut by the reaping machine.

*Claim*.—The revolving rake formed of the curved teeth *b* attached to the shaft A, the rods D curved as shown, so as to form the receptacles *e f*, and the elastic strips *k k* connected with the lever-frame F; the above parts being combined and arranged to operate substantially as shown, with or without the rod or bar, for the purpose set forth.

No. 19,118.—J. W. BALTZLY and WILLIAM HOBSON, Pana, Ill.—*Improvement in Hand Reapers*.—Patent dated January 19, 1858.—The engravings and claim explain the nature of this invention.

The inventors say: We do not claim the sickle L, nor the manner of operating or driving it.

Nor do we claim a rake working through a slotted platform.

But we *claim* the semi-circular bars C, connected with the frame A, and having the axis *a a* of the wheels B B<sup>1</sup> attached and provided with pins *f* in connection with the rod or bar M, attached to the frame A, and arranged relatively with the above-named parts, as described, so that the sickle may be adjusted at the required height with facility, and a proper handle or device obtained, for the ready propulsion of the machine by hand.

No. 19,367.—CHARLES HOWELL, of Cleveland, Ohio.—*Improvement in Reaping and Mowing Machines*.—Patent dated February 16, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The method of connecting the castor truck with the main frame when used in connexion with a lever E and arm *d*, as described, whereby the operator is enabled instantly to raise the cutting apparatus to surmount such obstacles as may suddenly present themselves, and to regulate the height of the cut, and at the same time allow the machine to accommodate itself to the inequalities of the ground.

No. 19,904.—CHARLES BEACH, of Penn Yan, N. Y.—*Improvement in Reaping and Mowing Machines*.—Patent dated April 13, 1858.—

C is a cutter, its shape may be changed when driven by any other means than the wheel B and connexion E. This cutter has a cutting edge at the upper and lower edge; the lower edge to cut with a downward motion by the aid of cutter D, the upper edge cuts when rising that which it gets under while it is down. D is a cutter attached to the upper edge of part A, and is secured to part A.

*Claim*.—The combination of the cutter C and D with the separator of a harvesting machine, when arranged and operated as and for the purposes set forth.



No. 20,212.—L. J. McCORMICK, WILLIAM S. McCORMICK, and CYRUS H. McCORMICK, of Chicago, Ill.—*Improvement in Reaping and Mowing Machines*.—Patent dated May 11, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Making the finger bar of a mowing machine of a bar of iron, wedge-formed in its cross-section, with its forward edge which carries the fingers made thin, that the sickle may act upon and cut leaning grass, and with its rear edge thick to obtain the required strength, and the under surface inclined that it may act like a runner, to pass and ride over the surface of the ground to keep the cutting edge of the sickle clear of obstructions, whilst at the same time it can have access to leaning grass, all substantially as described.

No. 20,251.—JOHN W. BROKAW, of Springfield, Mass., assignor to WARDER, BROKAW, and CHILD, of said Springfield.—*Improvement in Reaping and Mowing Machines*.—Patent dated May 18, 1858.—This invention consists in the use of shell standard B, provided with sliding boxes D for the reception of the journals of the driving wheel, in connexion with a change of pinions, when the former are so arranged and constructed in relation to the pinion shaft as that when the frame of the machine is lowered to adjust it for mowing, it shall require a small pinion to mesh into the master wheel, and a large one when raised for reaping, thus giving a fast motion for mowing and a slow one for reaping.

*Claim*.—The construction and combination of the shell standard B and sliding boxes D, when used in connexion with a change of pinions, and operating in relation thereto, in the manner and for the purposes set forth.

No. 20,275.—CHARLES HOWELL, of Cleveland, Ohio.—*Improvement in Reaping and Mowing Machines*.—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Connecting the outer end of the finger bar A with the gear block C, by means of a curved bar B, constructed in the manner substantially as and for the purposes set forth, whether it forms a prolongation of the gear block or otherwise.

No. 20,887.—C. MOUL, of Hanover, Pa.—*Improvement in Reaping and Mowing Machines*.—Patent dated July 13, 1858.—This invention relates to a new and improved device for regulating the height of the cut and for instantaneously raising the cutting apparatus for the purpose of surmounting stumps, stones, and other obstacles which may suddenly present themselves in the path of the machine, by means of which damage to the machine is prevented.

*Claim*.—The combination of the truck frame H, caster wheel L, and lever K, the whole being arranged and operated in the manner and for the purposes substantially set forth.

No. 19,894.—THOMAS HARDING, of Springfield, Ohio, assignor to WARDER, BROKAW, and CHILD, of said Springfield.—*Improvement in Cutting device for Reaping and Mowing Machines*.—Patent dated April



6, 1858.—In the engravings the knife is represented as being made of a series of triangular blades  $a$  rivetted to the sickle bar A, and describing with it, on either side, an angle of about  $45^\circ$  as a cutting edge, with the exception of the last one  $b$ , on the section or blade on the end of the sickle bar A, whilst its edge  $x$ , on the inside of the divider B, described a similar angle to the sickle bar, as the other, for the purpose of cutting has its outer edge  $y$  prolonged more or less according to the width of the divider.

*Claim.*—The arrangement of the end of the sickle bar A, next the divider, of a cutting and clearing section  $b$ , as constructed and for the purposes set forth.

No. 20,017.—JOHN W. BROKAW, of Springfield, Ohio, assignor to WARDER, BROKAW & CHILD, of said Springfield.—*Improvement in Reaping Machines.*—Patent dated April 20, 1858.—This invention consists in arranging the frame between the driving wheel and platform, commonly used in harvesting grain, an auxiliary platform of peculiar construction and operation, whereby the grain, as it is raked from the platform upon it, will be deposited automatically by its own weight in compact gavels upon the ground, out of the track of the horses, in the return swath.

*Claim.*—The combination of an auxiliary platform H with the platform for the reception of the grain as it is cut, when arranged, constructed, and operated in a space between the latter and the driving-wheel, in the manner substantially as and for the purposes set forth.

No. 21,207.—C. W. MARSH and W. W. MARSH, of Shabbona, Illinois.—*Improvement in Reaping Machines.*—Patent dated August 17, 1858.—This invention relates to an improved arrangement of parts applied to a reaping machine for the purpose of gathering grain as it is cut into proper-sized gavels, and enabling attendants to bind the same with facility into sheaves, and allow the sheaves to be discharged from the machine in piles, for the convenience of gathering or harvesting them.

The inventors say: We are aware that endless bands of rakes have been previously used for conveying cut grain from the platform of reapers, and we do not claim separately and broadly such device.

But we *claim* the box or receptacle I, platforms J M M, and box K, provided with the hinged or adjustable bottom end-piece  $l p$ , when the above parts are used in connexion with the endless bands of rakes D E, and arranged relatively with each other, substantially as set forth as and for the purpose specified.

No. 21,434.—JAMES MITCHELL, of Osceola, Iowa.—*Improvement in Binding Attachment to Reaping Machines.*—Patent dated September 7, 1858.—This invention consists in the use of clamps or band-carriers, a band-twisting device, tucking rod, and discharging device applied to the reaper, arranged relatively with each other and operated, whereby the grain is bound into sheaves and discharged upon the ground, the whole working automatically as the machine moves along.



The inventor says: I *claim*, first, the combination of the jaws *o o r r*, arranged as shown, and attached respectively to the slider *m m* and springs *p p*, whereby they are made to receive and grasp the ends of the band, as described.

Second. The clamp J, constructed of two parts *i<sup>1</sup> j<sup>1</sup>*, attached to the rotating wheel *h<sup>1</sup>*, and used in connexion with the slide-bar K and ledge *l<sup>1</sup>*, for the purpose of twisting the ends of the band, substantially as described.

Third. The jaws *o o r r*, clamp I, band-twisting device J, tucking-rod K, and discharge-rod G combined, arranged to operate substantially as and for the purpose set forth.

No. 19,020.—ISAAC H. CONKLIN, of Rockford, Illinois.—*Improvement in Seeding Machines*.—Patent dated January 5, 1858.—In this invention the machine is so constructed as to sow either in hills, drills, or broadcast, and give a greater or less quantity of seed in a given area. The improvement is explained by the engravings and claim.

*Claim*.—First. The hoppers *j* and the hopper F, when arranged with the bar B, as shown and used in connexion with the bar E, provided with shares as described, so that the seed may, by the same mechanism, be distributed from either hopper, and sown either in drills or check-rows, as may be desired.

Second. The disk *c<sup>1</sup>*, attached to the wheel A and provided with teeth *d<sup>1</sup>*, arranged in connexion with the disk *b<sup>1</sup>*, for the purpose operating intermittently the bar B, for the purpose specified.

No. 19,144.—JOHN HUSTON, of Ottawa, Ill.—*Improvement in Seeding Machines*.—Patent dated January 19, 1858.—This is an improvement in the distributing device whereby the seed is equally measured at each discharge, and the tube is prevented from becoming clogged; this is effected by means of vertical and horizontal slides.

The inventor says: I do not claim broadly, and irrespective of the arrangement shown, the employment or use of two slides for distributing seeds.

But I *claim* the arrangement of the shaft G, levers J *g* H, spring I<sup>1</sup>, bar D, and slide I, substantially as and for the purposes shown, whereby, when lever J is moved forward the lever *g* operates the bar D, lever H operates slide I, and spring I<sup>1</sup> acts to restore or throw the said parts to their first position.

No. 19,333.—CHESTER BARTON, of Savoy, Mass.—*Improvement in Seeding Machines*.—Patent dated February 16, 1858.—This invention consists in attaching the frame B<sup>1</sup>, which carries the seed-distributing device, and to which frame the pressure rollers N N, and driver's stand O are attached, to the axle A, of the wheels, in such a way that the frame may be readily raised when necessary by the driver, and kept in an elevated state so that the roller will be free from the ground while the machine is being drawn from place to place. The weight of the driver increases the pressure on the rollers, and tends to keep the machine in position when it is not elevated.



The inventor says: I do not claim the employment or use of the pressure rollers.

Nor do I claim the seed-distributing device, for these are old and well-known devices, and in common use.

But I *claim* the frame B<sup>1</sup>, provided with the seed-distributing device, and having the pressure rollers N N, and driver's stand O, attached, when said frame is connected with the axle A, and the shaft or windlass I, or its equivalent, and the whole arranged to operate substantially as and for the purpose set forth.

No. 19,423.—G. W. HILDRETH, of Lockport, N. Y.—*Improvement in Seeding Machines*.—Patent dated February 23, 1858.—As the plough moves forward, the rear propelling wheel C, communicates an oscillating circular motion to the distributors, through the intermediate connexions, and the seed in the hopper E, agitated and caused to run down off the inclined end of the distributors into the conducting tubes and from thence into the soil.

*Claim*.—The combination and arrangement of the bar L<sup>2</sup>, levers L<sup>1</sup>, horizontal feet l, and set screw U, with the cylindrical seed-distributors F, the whole being constructed, arranged, and operated in the manner described, and for the purpose set forth.

No. 19,514.—AARON RING, of Westbrook, Me.—*Improvement in Seeding Machines*.—Patent dated March 2, 1858.—The machine is operated in the following manner. The bag-hopper is filled with seed, the crank is then turned with the right hand, and the slide in the bottom of the hopper is then moved back, which will allow the seed to run freely into the revolving head, thence it will fly out of the distributing tubes spreading as it falls.

The inventor says: I do not claim sowing seed by centrifugal force, for that has been done before. Neither do I claim the distributing tubes in and of themselves alone, for they have been used in sowing seed broadcast.

Neither do I claim the bag-hopper in and of itself, neither do I claim the crank in and of itself alone, neither the shaft separate and alone, nor the slide at the bottom of the hopper, neither do I claim the revolving head alone.

But I *claim* the combination of these substantially as and for the purpose set forth.

No. 19,859.—ISAAC B. LUTZ, of La Fayette, Ind.—*Improvement in Seeding Machines*.—Patent dated April 6, 1858.—This invention is chiefly designed for sowing seed broadcast among standing corn, and consists in the means employed for distributing the seed, and in a peculiar arrangement of the seed-boxes and shares so that they are rendered capable of adjustment, to enable the implement to be expanded or contracted while in motion, to conform to the varying widths of the rows of seed.

The inventor says: I do not claim the adjustable bars D, separately, nor do I claim broadly the employment of screw rods for discharging the seed from the seed-boxes.



But I *claim* the rotating rods K, provided with two screw threads placed in reversed positions, and so arranged as to discharge the seed at both ends of their seed-boxes G, substantially as and for the purpose set forth.

I further claim the seed-boxes G G H, attached respectively to the adjustable bars D, and beam A, and provided with seed distributing screw rods, operated from the driving wheel B, through the medium of the gearing *m n q j j j*, substantially as set forth.

No. 19,839.—JOSEPH FREY, of Battle Creek, Mich.—*Improvement in Seeding Machines*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The device of using a screw with double thread, coarse and fine alternately, in the bottom of the seed-hopper, in combination with the oscillating hand lever and the eccentric pivot, to force the seed through the holes in the perforated bottom of said seed hopper, by means of the compound oscillating motion of the screw.

No. 19,871.—THOMAS A. RISHER, of Circleville, Ohio.—*Improvement in Seeding Machines*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the combination of the bar and plates with the double-holed bottom and the reciprocating slides, as this I have patented.

But I *claim* the peculiar arrangement of the bars B B<sup>1</sup> B<sup>2</sup> B<sup>3</sup>, with the right and left screws E E<sup>1</sup>, slides *a*<sup>1</sup> and *a*<sup>2</sup>, with its stirrer O, for the purpose of regulating the quantity of grain with uneven slides, as described.

No. 19,872.—THOMAS A. RISHER, of Circleville, N. Y.—*Improvement in Seeding Machines*.—Patent dated April 6, 1858.—In the operation of this machine, power being applied to the handles *d d*, the slides are set in motion and working between the two bottoms B and X the seed passes from the upper bottom through its apertures into the apertures in the slides, and as the slides alternate and their apertures pass over the wedge-shaped piece *n n* of bottom B, the seed is discharged on alternate sides of the wedge *n n* and passes into the discharge spouts below.

*Claim*.—The peculiar arrangement of the bottom B as constructed with the rock slides *c c c c*, handles *d d* and *e e*, rods *h h*, set-screw *a*, and bottom *x*, all operated in the manner set forth and for the purpose described.

No. 19,902.—CHARLES F. ANDERSON, of Charlestown, N. H.—*Improvement in Seeding Machines*.—Patent dated April 13, 1858.—This invention relates to an improvement in that class of Seeding Machines in which the distributing devices are combined for the purpose of distributing different kinds of seed by one and the same mechanism; and the invention also relates to a peculiar device for making the hills at certain points, and to a novel arrangement of means for elevating the body of the machine so that the seed-conveying tubes and shares may



be readily elevated from the ground while the machine is being drawn from place to place, or at any time when the distribution or planting of seed is not required, while the machine is in motion, as in turning at the end of rows.

The inventor says: I *claim*, first, actuating the seed slides Q R, by means of the shaft K, operated from the wheel P<sup>1</sup>, by the spur wheel J, pinion L, beveled or made of double oblique form on its outer side, the tube or collar *i*, provided with the pin *o* and the zig-zag groove in the shaft K and the spring *c*<sup>1</sup>, the above parts being arranged to operate as and for the purpose set forth.

Second. The latch or catch W, connected with the slides Q R, and used in connexion with the sliding collar M, and the boss or shell *o* on shaft K, substantially as and for the purpose set forth.

Third. The blade or scraper *f*<sup>11</sup> attached to the rod *e*<sup>11</sup>, and actuated when desired by means of the spindle *z*<sup>11</sup>, shaft *d*<sup>11</sup>, link *c*<sup>11</sup> and spring *g*<sup>11</sup>, substantially as and for the purpose specified.

Fourth. Raising and lowering the frame E of the machine by means of the eccentrics C C<sup>1</sup> attached to the axle A, in connexion with the straps D D and clutch *f*, substantially as and for the purpose specified.

No. 20,162.—JAMES F. KIERSTEAD, of La Porte, Ind.—*Improvement in Seeding Machines*.—Patent dated May 4, 1858.—The object of this broadcast sower and coverer is to prevent the distributing device from becoming choked; to insure a perfect and even movement of the same, and one that may be regulated to discharge more or less seed from the hopper in a given time as required; and further to obtain a perfect covering device, one that will conform to the inequalities of the ground and be under the perfect control of the driver.

The inventor says: I do not claim separately the adjustable perforated bar E, nor the reciprocating bar G, with its pendants *h* attached, for such devices or their equivalents have been previously used.

But I *claim* the reciprocating bar G, provided with the pendants *h*, and the adjustable perforated bar E, in combination with the bar L, the parts being arranged relatively with each other and the discharge openings *c*, so as to operate as and for the purpose set forth.

No. 20,301.—LUTHER ROBINSON, of Melrose, Mass.—*Improvement in Seeding Machines*.—Patent dated May 18, 1858.—This invention is chiefly designed for planting seed in hills and check-rows, and at the same time to distribute, at the time of planting, a fertilizing material in the hills with the seed, the whole being so arranged as to insure the perfect distribution of the seed and fertilizing material and to place the machine under the complete control of the attendant or driver. There are also drag chains to enable the driver to plant in parallel rows.

*Claim*.—The perforated reciprocating slide K, in combination with the supplementary or auxiliary perforated slides *h h i i*, one or more pairs, operated substantially as shown, for the purpose set forth.

No. 20,357.—JOSEPH McCAMMON, of Dayton, Ohio.—*Improvement in Seeding Machines*.—Patent dated May 25, 1858.—This invention consists in a peculiar means employed for distributing seed, whereby



the seed is prevented from arching and packing in the hopper and seed box, and presented in a proper manner to the seed apertures, the size of which may be graduated so as to sow a greater or less quantity of seed in a given space.

*Claim.*—The blades *b* attached to the rotating shaft D, which is placed within the hopper or seed box A, and arranged substantially as set forth, in combination with the adjustable slides F G H, and concave bottom E; the whole being arranged to operate as and for the purposes set forth.

No. 20,358.—G. W. L. McMILLEN, of Dayton, Ohio.—*Improvement in Seeding Machines.*—Patent dated May 25, 1858.—This invention consists in the employment of regulating slides, a gauge and a shaker, arranged and operated, so that the discharge of the seed may be regulated as desired, and the device prevented from being choked or clogged.

*Claim.*—The employment or use of the shaker G, placed between the rotating flanges E E, and operated by the curved rod F, and cam C; the sliding plates J M, gauge K, and cylinders D D; the whole being combined and arranged to operate as and for the purpose set forth.

No. 20,366.—A. M. PRATT, of Lowell, N. Y.—*Improvement in Seeding Machines.*—Patent dated May 25, 1858.—This is a novel arrangement of the furrow and covering shares with the seed-distributing shaft, in order that the seed-distributing device may be thrown out of gear simultaneously with the elevating of the furrow and covering shares, and by the movement of a single lever, so that the machine may be rendered inoperative when desired.

The inventor says: I do not claim the seed-distributing device, for that is in common use, and well known.

But I *claim* attaching the furrow and covering shares F D respectively to shafts E C, which are allowed to turn in their bearings, and are connected by the rods *k l* to the lever J, when said parts thus arranged are used in connexion with the shaft *i* attached to the lever J, crank *h* and lever I, which support one end of the seed-distributing shaft H; the whole being arranged to operate as and for the purpose set forth.

No. 20,575.—DANIEL B. NEAL, of Mount Gilead, Ohio.—*Improvement in Seeding Machines.*—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim.*—The peculiar arrangement of the gauge slide *e*, the screen *d*, and the pin *p*, with the bottom *g*, and seed slide G, for the purpose of regulating the quantity of seed to be discharged, and at the same time preventing straws or chaff from choking the slides, as is fully set forth.

No. 20,547.—SAMUEL BURNSIDE, of Reading, Ohio.—*Improvement in Seeding Machines.*—Patent dated June 15, 1858.—In this machine,

the seed slide D conveying tube K and hoe J, are so arranged that the seed is deposited in hills, covered, and the hills marked, the several parts acting automatically as the machine is drawn along. The machine is designed for planting seed in check rows, and to facilitate sowing in this way.

The inventor says: I do not claim separately the reciprocating seed slides D, for they are in common use; nor do I claim the hoes J separately.

But I *claim* the movable conveying tubes K, with hoes J attached, in combination with the seed-slides D, the above parts being operated and for the purpose set forth.

No. 20,643.—SAMUEL F. JONES, of St. Paul, Indiana.—*Improvement in Seeding Machines*.—Patent dated June 22, 1858.—This is a novel arrangement of the parts composing the seed distributing device, whereby the operator has full and perfect control over the same, without regard to the draught movement of the machine, and also that the seed may be deposited in the exact spot wished by the operator.

The inventor says: I do not claim separately any of the parts, or when viewed irrespective of the arrangement shown and described for attaining the desired end.

But I *claim* the slides M I J, arranged, respectively, within the box E and tubes F G, and operated through the medium of the tube S, shaft P, pendent O, and rods N L K, as shown and described, for the purpose set forth.

No. 20,656.—WILLIAM MOREHOUSE, of Davenport, Iowa.—*Improvement in Seeding Machines*.—Patent dated June 22, 1858.—This is an improvement in that class of seeding machines by which the seed is planted in hills and in check rows, two rows being planted at the same time. The invention consists in a novel means employed for operating reciprocating seed-slides and markers, whereby the distribution or stopping of the seed is placed entirely under the control of the driver.

The inventor says: I am aware that markers have been previously used and arranged similar to the ones described; I therefore do not claim the markers separately considered. Nor do I claim the reciprocating seed-slides F, nor the seed conveying tubes S, for they have been used.

What I *claim* is, the cams J attached to the axle I, and laterally moving rods K M, attached, respectively, to the shafts H g, the seed-slides E being attached to the shaft H by rods G, and the shaft g being attached to a slide z, the above parts operating as and for the purpose set forth.

I also claim the markers n attached to the frame N, when said markers are used in connexion with the cams J and rods M K for operating the seed-distributing device, and the whole arranged to operate as and for the purpose set forth.

No. 21,162.—S. R. WELDON, of Winnebago Station, Illinois.—*Improvement in Seeding Machines*.—Patent dated August 10, 1858.—



This invention relates to an improvement in that class of seeding machines which are designed for sowing seed broadcast. It consists in the employment of a seed box, formed with two compartments, and arranged with a slide, adjustable flap, and discharge orifice, so as to insure the perfect distribution of the seed, and to cut off the discharge when necessary.

*Claim.*—Dividing the hopper C into two equal compartments *a b*, and using a slide F to graduate the opening *a* between them, when the hopper thus arranged is used in combination with the rotating seed-distributing wheels K, flap or back-board G, and the double walls *f g*, all arranged to operate as and for the purpose set forth.

No. 21,152.—T. R. RICHMOND, of Masillon, Ohio.—*Improvement in Seeding Machines.*—Patent dated August 10, 1858.—This invention relates to that class of seeding machines which are designed for sowing seed broadcast, and consists in a novel distributing device, whereby the seed is dropped or discharged from the seed-box in a continuous stream, and by a simple arrangement.

The inventor says: I am aware that perforated seed-slides are an old device, and have been used in various ways; but I am not aware that a series of slides have been used in connexion with perforated caps and plates, so arranged as to discharge continuous streams of seed. I do not claim separately, therefore, the employment or use of perforated seed-slides.

But I *claim* the reciprocating slides I, operated as shown, in combination with the caps K and plates I<sup>1</sup>; the above parts being perforated, and arranged substantially as and for the purpose set forth.

No. 21,252.—JOSEPH FOWLER and F. M. BACON, of Ripon, Mass.—*Improvement in Seeding Machines.*—Patent dated August 24, 1858.—This invention consists in a seed distributing device for scattering or sowing the seed in connexion with a drag or harrow attachment, whereby the seed will be evenly sown and properly covered with earth, and all the parts placed under the perfect control of the operator or attendant.

*Claim.*—The combination of the rotary perforated cylinder E, board H, and toothed bars I, arranged for joint action, as described.

No. 21,273.—D. B. KIEPER and A. C. FOX, of Texana, Texas.—*Improvement in Seeding Machines.*—Patent dated August 24, 1858.—This invention consists in the employment of a perforated endless band, which is fitted in a seed box and arranged for distributing seed, in connexion with a reciprocating rotary agitator, and an adjustable plate K, for the purpose of preventing the seed from clogging, and insuring the proper discharge of the seed from the same box.

*Claim.*—The combination of the endless band F, oscillating arms *h*, and adjustable plate K, arranged relatively to each other, as shown, whereby the seed is properly agitated and kept, when reduced in the box A, within the path or reach of oscillation of the arms *h*.



No. 21,257.—PAUL HILDRETH, of Beloit, Wis.—*Improvement in Seeding-Machines*.—Patent dated August 24, 1858.—This invention is intended to sow seed broadcast, and is called a broadcast seed sower. It is operated by means of the driving wheel E, which is attached to the motive power by shaft and wheel, and connects with the revolving distributing cylinder by shaft and cog-wheel, as seen at D, and connecting also with shaft of feed-augers 1 by pulleys and belts, as seen at F H.

The inventor says: It is the arrangement of the cone or graduated pulleys F and H, and the feed-augers 1, in connexion with the revolving distributing cylinder *b*, and the distributing adjustable feeder C, that I *claim* as my invention, and no more.

No. 21,354.—LEWIS MOORE, of Ypsilanti, Mich.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—The nature of this invention consists in the combination of the zigzag strip projecting from the bottom of the reciprocating bar with an adjustable gauge plate, which has different sized seed cells, and a hopper having oblong slots or discharge passages in its bottom.

*Claim*.—The combination of the zigzag strip D projecting from the bottom of a reciprocating bar C with an adjustable gauge plate B, which has different sized cells *b c*, and with a hopper A having oblong slots or discharge passages *a* in its bottom, substantially as and for the purposes set forth.

No. 21,389.—ALEXANDER TURNER, REDDEN BESS, and HENRY SLOAN, of Franklin, Indiana.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—The nature of this invention consists in the peculiar construction of a plough and arrangement of a seeding apparatus connected therewith. The plough passes ahead of the seed boxes, and is altered and changed to suit the different kinds of seed which it may be desirable to sow.

*Claim*.—The arrangement of the seed boxes B and C, the seed slides *d* and *e*, rod H, wheels G and F, and ploughs J J, in the manner specified and for the purpose set forth.

No. 21,375.—JOSEPH D. SMITH, of Lancaster, Ohio.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—This invention consists in the combination of a peculiar seed distributing device and a device for forming the necessary furrows to receive the seed, with a peculiar arrangement of the framing whereby the device is allowed to conform to the inequalities of the ground, and the seed distributing portion elevated free from the ground when desired, as in moving from place to place, or in turning at the ends of rows, &c.

The inventor says: I do not claim, broadly, the employment of two wheels for opening the furrow, the seed being dropped between the wheels.

But I *claim* the arrangement and combination of the spout R, wheels M, frame H, and frame D as and for the purposes shown and described.



No. 21,349.—J. B. McCORMICK, of Versailles, Kentucky, and WILLIAM R. BAKER, of Boston, Mass.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—To the underside of the frame E two plates or shares H H are attached. These plates or shares are placed, one by the concave side of each wheel G. The front ends of the shares are rounded and they fit within the shoulders *b* of the wheels, said shoulders serving as a protection to the shares. The back ends of the shares are covered a little outward so as to form a sort of mould board *c* to make the necessary furrows.

*Claim*.—The arrangement and combination of the rotating wheel G with the stationary plates or shares H substantially as and for the purpose shown and described.

No. 21,350.—E. L. LYON, of East Randolph, New York.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—This invention consists in the peculiar construction and arrangement of the seed-distributing devices as applied to the wheels, whereby the seed may be planted evenly in check rows or in parallel drills in an expeditious manner.

The inventor says: I do not claim broadly, attaching seed-distributing devices to wheels.

But I *claim* the sliding seed boxes F attached to the radial bars E, and outer end pieces *a* of the seed boxes, being provided respectively with the recesses *e f d*, and the outer ends of bars E projecting beyond the peripheries of the wheels, the whole being arranged for joint operation substantially as and for the purpose set forth.

I also claim in combination with the above-named parts, the covering shares H, arranged substantially as described.

No. 21,314.—THOMAS J. BOTTOMS, of Thomasville, Georgia.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—In the operation of this invention the seed is placed in the hopper *b* and pass down through a hole or chamber *p* in the beam. The slide *o* is so constructed that it can be moved forward or backward so as to enlarge or diminish the size of the hole in the beam. The front shovel opens the ground and the rear shovels cover the seed. When the seed fall through the beam they are caught on the grain spreader and scattered broadcast. The spreader is used only when small seeds are sowed broadcast. The valve *m* is pressed up against the hole by means of the spring *c* at all times, except when opened by the eccentric pins in planting.

*Claim*.—The eccentric pin *i*, lever *d*, spring *c*, valve *m*, spreader *n*, rag pin *l*, slide *o*, and hopper *b*, the whole arranged and operating as described for the purposes specified.

No. 21, 323.—SMITH CONKLIN and GEORGE NEWTON, of Sterling, Vermont.—*Improvement in Seeding-Machines*.—Patent dated August 31, 1858.—This invention consists in the arrangement of a seed-distributing device with the peculiar means employed for regulating the discharge of the seed therefrom.

*Claim*.—The inventors say: We do not claim broadly a perforated



reciprocating slide without reference to the form or shape of the perforation and the gauge or regulating bar H, for such device is common to many classes of seeding-machines.

But we claim the arrangement and combination of the plate F, guides C, bars G H, and box E, as and for the purposes shown and described.

No. 21,452.—SAMUEL STANBRO, of Salem, Mich.—*Improvement in Seeding-Machines*.—Patent dated September, 7, 1858.—The object of this invention is to overcome the defects in the measuring conveyor and diminish the cost of its construction, and the invention for effecting this object consists in the application of a twisted cord as conveyor in connexion with a series of curved bridges through which the cord vibrates, which forms a cheap conveyor and measurer that can easily be replaced when worn out.

*Claim*.—The application of a twisted cord, in combination with measuring tubes, arranged substantially as described, for the purpose of measuring and delivering the seed.

No. 21,595.—GEORGE C. BUNSEN and CYRUS ROBERTS, of Belleville, Ill.—*Improvement in Seeding-Machines*.—Patent dated September 28, 1858.—This invention relates to an improvement in that class of seeding-machines designed for sowing seed broadcast or in drills.

The inventors say: We *claim*, first, the employment or use of the cylinder G provided with the step-like projections *j j* between circumferential flanges *h h*, oblique partitions *i* and zigzag grooves *k*, said cylinders being fitted within a cylindrical case F at the bottom of box D, and having a reciprocating rotating motion, as and for the purpose set forth.

Second. The arrangement of the adjustable tubes K attached to the arms J the rollers *g<sup>x</sup>* and cutters *i<sup>x</sup>*, whereby both the cutters and tubes may be adjusted as described, and the pressure on the cutters graduated as desired, as also the depth of the furrows made by the cutters.

No. 21,780.—ANDREW SIMMONS, of Nora, Ill.—*Improvement in Seeding-Machines*.—Patent dated October 12, 1858.—This invention consists in making the seed-slide of a corrugated form, with seed openings at its edges, and on opposite sides of its ridges, or corrugations, so that the grain is carried from the hopper at both motions of the slide, but will not waste out when the slide is at rest.

*Claim*.—Forming the seed-slide of a corrugated plate, and making the seed-openings therein at the edges and on opposite sides of the ridges or corrugations, substantially in the manner and for the purpose set forth.

No. 21,850.—MARSHALL S. ROOT, of Medina, Ohio.—*Improvement in Seeding-Machines*.—Patent dated October 19, 1858.—In this invention there is an arm P extending horizontally from rod O and backward, against which a bent arm Q which is inserted into the wheel D acts as an inclined plane against the arm P as the wheel revolves upon



the ground. This action of the bent arm Q against the arm P opens the slider N at regular intervals, the intervals being such as to sow the seeds at the required distances apart. The opening of the valve or slider N allows the seed to escape through the orifices in the bottom of the seed-box at *b g*. In order to close the orifices through which the seeds pass a coiled spring R is introduced, which by its elasticity moves back the slider N, the movement is relieved from the pressure of the bent arm Q.

*Claim.*—The bent arms Q Q, arms P and U, rod O, and spring R, when these several parts are arranged as described for operating the corn planter and sower, and combined with the revolving harrow, as set forth.

No. 21,807.—A. G. BABCOCK, of Galesburgh, Illinois.—*Improvement in Seeding-Machines.*—Patent dated October 19, 1858.—The nature of this invention consists in the arrangement of two rollers placed on a center shaft, the right hand roller being made fast to the shaft on which is supported a frame composed of two side and four cross timbers.

Forward of the rollers is placed a grooved cylinder, of the same length as the rollers, extending across the frame and supported by it, and at a sufficient distance from the rollers to admit the drags. Immediately over it is placed a hopper with an aperture in the bottom extending its whole length, through which the grain is discharged immediately into the grooves of the cylinder. Back of the cylinder is an apron which extends partly around the cylinder and terminates at the most dependent point. Beneath the lower edge of the apron is placed a guide plate by which the grain is conveyed to certain points.

*Claim.*—The described arrangement of the form rollers A A, grooved cylinder D, elastic wipers 3, hopper E, guide plate H, drags i, and windlass K, when constructed as and for the purpose set forth.

No. 21,995.—JOSEPH WALTON, of Delaware, Ohio.—*Improvement in Seeding-Machines.*—Patent dated November 2, 1858.—The inventor says: I mount the drive wheel A, rotary disk B, and hopper upon any convenient frame, in such a manner that the top surface of the disk B may be horizontal, or nearly so, when at work, and the centre of the disk directly beneath the throat L of the hopper; on the top of the surface of the disk I place wings *c c c* with their outer edges tangent to a small circle seen in fig. 3. The partition N N, I place at an angle of  $60^{\circ}$  with the line of draught. The gate, or valve, H I, for regulating the flow of grain from the hopper, I make with a semi-circular disk three-sixteenths of an inch smaller than the throat L, which I make about six inches in diameter. The gate is raised or lowered by the screw K.

*Claim.*—The rotary disk B, in combination with the throat L, the partition N N, the valve H I, the finger E, and the grass seed hopper, when the whole are arranged and combined for joint operation as set forth.



No. 21,969.—HERMANN KALLER, of Perry, Ill.—*Improvement in Seeding-Machines*.—Patent dated November 2, 1858.—To the front part of frame A, and at each side, a tube F is attached, said tube being secured by bolts  $\alpha$ . These tubes may be formed by having metal plates  $b$  attached to the wooden standards  $c$ , the plates  $b$  projecting back of the standard so as to form the tube. To the front sides of the standards  $c$  the furrow shares G are attached, one to each, and at the upper part of each tube F a hopper H is placed. Directly below each hopper H a cylinder I is placed, and both cylinders are placed on opposite ends of a shaft J, which extends across the machine.

*Claim*.—The cylinders I I, provided with the seed cells  $d^1$ , having the slides  $e$  attached and arranged within the tubes F, and relatively with the hoppers H, to operate as and for the purpose set forth.

No. 21,958.—AARON HATFIELD, of Petersburg, Ill.—*Improvement in Seeding-Machines*.—Patent dated November 2, 1858.—The nature of this invention consists in the particular manner in which is arranged the seeding devices, and in which they are operated for drilling in grain and sowing it broadcast, one or both at the same time, and whether between corn rows or otherwise.

The two seed boxes F and D are similarly constructed, only that they have no plate corresponding to the additional bottom plate  $v$  in the seed box E, and have each a notched plate  $x$  instead of the slide  $s$ , which plates,  $x$ , however, can be adjusted similarly by means of stirrups, nuts, and screws  $y$  so as to cover up the holes  $j$  of the seed tubes  $g f$ , to a greater or less extent, and thereby to allow passage to corresponding quantities of seed or grain. The seed hoppers D E F are arranged for drilling in the seed or grain, whilst that (C) at the rear of the machine is arranged for sowing broadcast. They may be differently arranged, if desired.

*Claim*.—The arrangement of the seed hoppers represented in combination with the mechanism for driving the seed slides and dropping the grain or seeds, and covering them as described and shown.

No. 21,959.—W. Y. HENRY, of Monmouth, Illinois.—*Improvement in Seeding-Machines*.—Patent dated November 2, 1858.—This invention relates to an improvement in that class of seeding machines which are designed for planting seed in check rows, and consists in a peculiar arrangement whereby the seeding device, markers, and shares are placed under the complete control of the driver, and the operation of planting seed in check rows greatly facilitated.

*Claim*.—Connecting or arranging the levers or rods M M, of the pestles or weights  $h$ , and the levers I, of the tubes H, substantially as shown, when used in combination with the wheel  $i$ , connected with the slide Q, and the whole arranged to operate as and for the purpose set forth.

No. 22,208.—JOHN W. VANDIVER, of Shelbyville, Missouri.—*Improvement in Seeding-Machines*.—Patent dated November 30, 1858.—This invention consists in a peculiar seed scattering device placed within the seed conveying tubes, and arranged so that the seed may



be scattered in the hill as it is dropped ; so that the seed of each dropping will be planted in the hill as it is dropped at suitable distances apart, most favorable for its growth and cultivation.

*Claim.*—The bars or rods *j*, pivoted within the said conveying tubes E, and having elastic plates *ll* attached, the upper ends of said bars or rods being connected with the vibrating plates F, of the seed distributing device, substantially as and for the purposes set forth.

No. 22,184.—DANIEL MARKHAM, AUSTIN S. MARKHAM, and DAVID ELDRED, of Monmouth, Illinois.—*Improvement in Seeding-Machines.*—This invention consists in a peculiar manner of arranging two seed distributing devices in one and the same hopper, whereby seed may be planted in check rows, in drills, or broadcast as may be desired.

*Claim.*—The arrangement of the rotating shaft F, provided with distributing wheels *i*, having buckets attached to the slide bar G, the plate I, and adjustable strips or bottom *h*, substantially as shown, whereby seed may be planted from the same seed-box, either in drills, check rows, or broadcast as may be desired.

No. 22,180.—R. W. HUNT and M. KENNEDY, of Galesburgh, Ill.—*Improvement in Seeding-Machines.*—Patent dated November 30, 1858.—A represents a horizontal frame, which is mounted on two wheels B B, and C is a draught-pole attached thereto. On the back part of the frame a driver's seat D is placed, and to each side of the frame a bar *a* is attached by a joint *b*, the front ends of the bars being attached to the under side of the frame. The back of each bar *a* is attached by a pivot *c* to a bar *d*, and the upper end of the bars *d* are pivoted to bars *e e*, which are pivoted to frame A. The upper ends of the bars *d* are attached to a transverse bar *f*.

*Claim.*—Arranging the levers *i* and plates *j*, which form the dropping device, with the levers *m m* in the tubes *g*, as described, whereby the above named parts are rendered capable of being operated simultaneously by the simple action of the bars *u* on the ends of the levers *i*.

No. 22,171.—WARREN DRUMMOND, of Woodbridge, N. J.—*Improvement in Seeding-Machines.*—Patent dated November 30, 1858.—This invention relates to an improved seed-distributing device. It is designed for planting seed in hills or drills, more especially for planting in hills, checks, and rows, and is intended to prevent the clogging or choking of the seed-distributing device, and also the breaking of the seed as the seed-cells are drawn underneath the cut-off.

*Claim.*—The elastic rollers K arranged relatively with the slides J, to operate as and for the purposes set forth.

No. 22,339.—JOHN BADGER, of Baileyville, Ill.—*Improvement in Seeding-Machines.*—Patent dated December 21, 1858.—This invention consists in the employment or use of a series of circular plates and stirrers fitted on a rotary shaft, which is placed in a seed-box provided with a slotted bottom and a slide ; the whole being arranged whereby the seed may be sowed evenly in a broad-cast manner, and



the amount of seed to be sowed in a given area of ground graduated as desired.

*Claim.*—The circular plates I and stirrers *h*, attached to the rotating shaft *F*<sup>1</sup>, within the seed-box *C*<sup>1</sup>, arranged and combined with the slotted bottom *D* and slide *E*, substantially as and for the purpose set forth.

No. 22,374.—ALBERT W. MORSE, of Eaton, N. Y.—*Improvement in Seeding-Machines.*—Patent dated December 21, 1858.—To the rear of box *b* is attached a seeding box *f* with tubes *c c c*, motion is communicated to the rod *d* by means of band *E*, which runs on grooved pulleys *g*. The seeding box *f* is attached to box *b* by hooks *h*. The said box *f* can be removed when the clod-crusher or roller is used as a compressing roller for pulverizing the ground when it is not desirable to sow seed. When a seed sower is wanted without a clod-crusher or roller, the intermediate wheels *m* are removed, and the external wheels *m*<sup>1</sup> and *m*<sup>2</sup> retained, as shown in fig. 3, which is a rear elevation view of the machine.

*Claim.*—The arrangement of the hopper *f* with the rollers *g g*, belt or strap *E*, rollers *m*, and rings *a*, as described, for the purposes set forth.

No. 22,418.—JOSEPH FOWLER and F. M. BACON, of Ripon, Wis — *Improvement in Seeding-Machines.*—Patent dated December 28, 1858. This invention relates to an improvement on the seeding-machine patented by these inventors August 24, 1858, and consists of an improvement in the seed-distributing device whereby the seed may be more evenly distributed or planted than by the patented machine above alluded to.

*Claim.*—The reciprocating perforated slide *H* and perforated roller *G*, in connexion with the inclined board *J*, the whole being arranged to operate as and for the purpose set forth.

No. 22,190.—S. MINNICH, of Hopewell, Ohio.—*Improvement in Apparatus for Holding Sheep.*—Patent dated November 30, 1858.—The nature of this invention relates to the construction and adaptation of a couch upon which sheep are placed while being shorn of their fleece.

The couches in which the sheep are secured while being shorn are two in number, and are formed exactly alike. They consist of three longitudinal pieces each, seen at *D D*<sup>1</sup>, *E E*<sup>1</sup>, and *F F*<sup>1</sup>, the pieces *D E F* forming one couch, and *D*<sup>1</sup> *E*<sup>1</sup> *F*<sup>1</sup> forming the other. They are alike, both in structure and office.

*Claim.*—The adjustable couches *D E F* and *D*<sup>1</sup> *E*<sup>1</sup> *F*<sup>1</sup>, in combination with the neck piece *I* and extension levers *M L*, arranged and operating in the manner and for the purpose set forth.

No. 20,585.—DAVID R. REED and JAMES E. CHAPMAN, of Castile, N. Y.—*Device for Holding Sheep while being sheared.*—Patent dated June 15, 1858.—This invention consists in the employment or use of a concave bed *G* and rotating adjustable wheels *E E*, whereby sheep



may be securely held and properly and readily adjusted while being sheared, so as to greatly facilitate the operation of shearing.

*Claim.*—The adjusting wheels E E and bed G, fitted to a suitable base A, and arranged substantially as and for the purpose set forth.

No. 19,431.—WILLIAM H. MAY, of Alexandria, Va., and CHARLES W. COONTZ, of Winchester, Va.—*Improvement in Machine for Sowing Fertilizers.*—Patent dated February 23, 1858.—The nature of this invention consists in arranging a series of vertical wooden shafts E, armed with radial metal stirring arms K K<sup>1</sup>, with in a guano or fertilizer hopper of a seed drill, the stirrer arms being attached by means of screws c on their ends, which allow of their attachment and detachment in a ready manner; and the lower ends of the shafts being encircled by a metal ferrule J, which prevents the splitting of the same when subject to great strain, and when being bored or punched to receive the arms. The arms of the shaft revolve horizontally.

*Claim.*—The combination of a metal ferrule or thimble J, wooden shaft E, and metal stirring arms K K<sup>1</sup>, when said ferrule is arranged on the lower end of the shaft, and the stirring arms furnished with a screw thread, and connected with and fastened to the thimble and shaft, substantially as and for the purposes set forth.

No. 21,181.—LYMAN BICKFORD, of Macedon, N. Y.—*Improvement in Machines for Sowing Fertilizers.*—Patent dated August 17, 1858.—This invention consists in forming the part of the hopper through which the distributing apertures are made, and also the slide or slides by which the size of the apertures is regulated, of thin metallic plates or other fit material, or of plates of metal or other material shaped to an edge, so that a thin or sharp edge bounds the sides of the apertures, which severs and detaches particles from the mass, and causes the passage through the apertures of the substances sown, and permits these substances to pass the apertures obliquely as well as otherwise.

*Claim.*—The inventor says: I do not claim as my invention the formation simply of distributing apertures in the bottom of a hopper of a machine for sowing fertilizers, seeds, or other things, for such are employed in the machine for which letters patent were granted to Warren S. Bartle, April 22, 1856, and in other sowing-machines.

But I claim a hopper bottom A, formed of sheet metal or its equivalent, in which are arranged apertures a, constructed as set forth, when combined with a series of vertical stirrers k, and a slide or slides b, arranged on the inner side of the bottom A, in the manner and for the purposes substantially as described.

No. 21,803.—JUDD STEVENS, of Marengo, Illinois, assignor to Himself and JOHN L. BEADLE, of said Marengo.—*Improvement in Spading Machines.*—Patent dated October 12, 1858.—The nature of this invention consists in the employment of mechanism by which the spade is given a sliding and turning motion, for raising and discharging the earth, similar to the manipulation of that implement by human hands.

*Claim.*—The inventor says: I claim jointing or hanging the spade



K to the wheel A, in such a manner that in the forward motion of the machine it will remain in proximity with the periphery of the wheel until the lifting of the earth commences, when it shall pass outwards, or slide upon its bearing, thereby acting more efficiently to raise and disintegrate the soil, substantially in the manner and for the purpose set forth.

I also claim the combination and arrangement of the tripping lever H, with the spade *b*, substantially as and for the purpose described.

No. 22,473.—CARLOS W. GLOVER, of Farm Ridge, Illinois, assignor to Himself, BRONSON MURRAY and J. VAN DOREN, of La Salle county, Illinois.—*Improvement in Stacking Agricultural Products*.—Patent dated December 28, 1858.—This invention consists in forming a stack of any material out of two, three, four, or more lengths of the material which overlap, or break joint with each other, the heads all pointing to a common center, and so arranged that when the radial sides of the spread out material are drawn together and bound, a conical or pyramidal stack shall be formed.

*Claim*.—Making a stack of two, three, four, or more lengths of straw, or other material that overlap and break joint with each other, and which are laid with their seed ends pointing to a common center and communicating at the apex, and ending at the base, and drawn together and secured, substantially as represented, using a foundation to build upon an apron, or binding cords and chains as set forth.

No. 22,475.—JOHN VAN DOREN, of Farm Ridge, Illinois, assignor to Himself, BRONSON MURRAY and CARLOS W. GLOVER, of La Salle county, Illinois.—*Improvement in Stacking Agricultural Products*.—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The so placing of two, three, or more layers of stalks or straws in a box or former as that they shall break joint with each other, beginning at the apex and so continue until one-half of the stack is formed, and then reversing the operation and laying them from the base to the apex, for the other half of the stack, so that when bound up they shall form a stack shingled on its outside to protect the interior, substantially as described and represented.

No. 19,430.—JAMES H. MAYDOLE, of Eaton, New York.—*Improvement in Machines for Gathering Stones*.—Patent dated February 23, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, so constructing the scoops, and so arranging them in reference to, and in combination with, the other parts, that they will strike the earth and stones directly endwise in passing over the apron, and as they rise be turned or rotated to retain the stones, as described.

Second. So constructing the fingers of the scoops and so arranging them in connexion with those of the apron that they shall cover the fingers of the apron instead of the spaces between them, as set forth.

Third. The combined adjustment of the carriage and of the scoops



upon it described, by which the apron and scoops may be maintained at different angles at the same height, or at the same angle at different heights from or in the ground, or both varied at pleasure, as set forth.

No. 20,774.—G. W. BISHOP, of Brooklyn, N. Y.—*Improvement in Machines for Gathering Stones*.—Patent dated July 6, 1858.—This invention consists in having a receptacle or box A mounted on wheels, and having an inclined plane D at its front end, the wheels of the box having rods attached; said rods are connected to a scraper F which works over the inclined plane, and which scraper, by means of springs or drop-guide G G, in connexion with the rods, is made as the machine is drawn along, to draw up the stones into the box.

*Claim*.—The box A provided with the inclined plane D, and used in connexion with the reciprocating scraper F, and spring guides G G or their equivalents, the whole being arranged to operate as and for the purpose set forth.

No. 20,038 —PETER S. CLINGER and CYRUS CREMER, of Conestoga Centre, Pa.—*Improvement in Straw and Stalk Cutters*.—Patent dated April 27, 1858.—The manner in which to work this machine is, first to cause the cylinder to revolve by means of a belt running around the pulley I from a horse or other power; then take a bundle of stalks and drop them lengthwise into the trough K, from whence they will fall on the stationary knives A A A, and by action of the knives B B B or spikes C C C on the revolving cylinder each stalk will be cut into four parts, and each part will then fall into the concave beneath, and by the action of the teeth on the revolving cylinder and the teeth in the concaves the stalks will be torn apart in the direction of the fibre, and will be delivered beneath the machine.

The inventors say: We do not claim the invention of a revolving cylinder or stationary concaves with knives, teeth, or spikes, but we are not aware that they have ever before been combined for the purpose specified.

What we *claim* is, the revolving toothed cylinder H, armed with knives B and spikes C, in combination with the stationary knives A and toothed concave E, constructed to operate conjointly as and for the purpose set forth.

No. 22,117.—CARLOS W. GLOVER, of Farm Ridge, Ill.—*Improvement in Straw Carriers*.—Patent dated November 23, 1858.—This invention consists in combining with a series of vertically and horizontally moving bars, for carrying forward and upward the stalks, the spring guide and holder, to prevent said stalks in their greatest ascent from slipping back or getting entangled.

*Claim*.—In combination with a series of bars *a b*, having the motions described, the spring shield for aiding to guide the stalks or other thing conveyed thereon, and preventing their falling back or becoming entangled, substantially as set forth.

No. 19,200.—JACOB H. MUMMA, of Harrisburgh, Pa.—*Improvement in Straw Cutters*.—Patent dated January 26, 1858.—The object of



this invention is to divest corn stalks of adhering soil, crush, and then cut them into short pieces for food for cattle; also to be used as a straw cutter.

*Claim.*—The arrangement of the feed rollers  $e\ e^1$ , operated on by tappets  $o\ o$ , crushing cylinder  $d\ d^1$ , provided with gum springs  $n\ n$ , cutter bar  $g$  and  $h$ , and cutter  $l\ l$ , substantially in the manner and for the purposes set forth.

No. 19,462.—THOMAS H. WILLSON and DANIEL T. WILLSON, of Harrisburgh, Pa.—*Improvement in Straw Cutters.*—Patent dated February 23, 1858.—This improvement relates more especially to that class in which yielding feed rollers are used to crush the straw or stalks, and carry the same to rotary cutters, whose axis of revolution is parallel to the axis of the feed rollers, and in which the motion of the feed rollers is derived directly from the cutter shaft.

The inventors say: We *claim*, first, the arrangement of axis of the driving pinion to the yielding feed roller above the axis of said roller as described, when said yielding feed roller vibrates in vertical guides for the purpose set forth.

Second. Constructing the feeding trough with inclined openings in its bottom, arranged as described, in order to facilitate the passage of the dirt, and prevent the short pieces of fodder from escaping.

Third. Constructing the lower feed roller with openings in its periphery for the escape of the dirt or other hard materials which collect upon it during the passage of the fodder between the rollers.

Fourth. The combination of the longitudinal ribs on the lower feed roller with the openings in its periphery for the purpose described.

No. 19,425.—W. O. HICKOK, of Harrisburgh, Pa.—*Improvement in Straw Cutters.*—Patent dated February 23, 1858.—This invention consists in the employment of a reciprocating serrated plate  $G$ , in connexion with rotating cutters  $h$ , so arranged that straw, corn stalks, and other substances usually cut by such machines, are cut expeditiously. Crushing rollers  $J\ K$  are used in connexion with the cutters.

The inventor says: I do not claim the feed rollers  $E\ F$ .

Nor do I claim, broadly, the crushing cylinders  $J\ K$ , nor the rotating cutters  $h$ .

But I *claim*, first, the reciprocating serrated plate  $G$ , in combination with knives  $h$ , arranged to operate substantially as and for the purpose set forth.

Second. The toothed crushing cylinders  $J\ K$ , rotating with different speed, in combination with the plate  $G$  and knives  $h$ , the whole being arranged substantially as and for the purpose set forth.

No. 19,779.—W. W. HOLLMAN, of Eddyville, Ky.—*Improvement in Straw Cutters.*—Patent dated March 30, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim.*—The combination of the movable bottom, when constructed as set forth, with the cam shaft  $C$ , cams  $A$  and  $B$ , and connecting-rod  $D$ , for giving a projection of straw under the knife by raising the lever  $W$ , said projection being gauged and furnished by the upward



and downward motion of the lever, in the manner and for the purpose set forth.

No. 19,895.—JOSEPH B. OKEY, of Indianapolis, Indiana, assignor to Himself and W. Y. WILEY, of Marion county, Indiana.—*Improvement in Straw Cutters*.—Patent dated April 6, 1858.—*a* is a double feed box ; B a drum or wheel ; C a slot for the screw D to operate through ; G is a gauge plate ; F F are knives or cutters.

*Claim*.—The combination and arrangement of the box *a*, gauge G, knives F F, or their equivalents, upon the drum or wheel B, when constructed and arranged substantially as set forth.

No. 19,952.—E. P. RUSSELL, of Manlius, New York.—*Improvement in Straw Cutters*.—Patent dated April 13, 1858.—This invention consists in an improvement in that class of straw and stalk cutters in which a reciprocating knife is made to work over the end of the feed trough, or box, for the purpose of cutting the straw or stalks. Also, in the peculiar manner of hanging the knife, and the means employed for feeding the straw or stalks to the knife.

*Claim*.—The arrangement of the knife B, and feed rollers K L, when attached for operation, and arranged relatively with the feed box A, substantially as and for the purposes set forth.

No. 19,935.—JOHN K. LANDIS, of Lancaster, Pa.—*Improvement in Straw Cutters*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says : I *claim* a yielding bed or bottom in the feeding trough or box, connected to and depressed by the lower feeding roller as it is forced down by the material fed into the machine, substantially as described.

And, in combination with the above, I claim the rotary cutting apparatus arranged to receive the cut fodder and cut it still finer, as described.

No. 20,103.—JOHN TITTLE, of Johnstown, Pa.—*Improvement in Straw Cutters*.—Patent dated April 27, 1858.—This invention consists in the peculiar means used for operating the feed rollers and regulating their movement, and the mode of hanging and operating the knife ; also, in the use of a pressure bar for holding the straw or other substance firmly down upon the bed at the end of the feed box, so that the knife can act upon the straw or other substance to be cut.

The inventor says : I *claim* the arrangement, substantially as shown, of the knife G, with its arms or levers F F<sup>1</sup>, when connected for operation conjointly with the feed rollers I J, pressure bar K, and feed box A, in the manner and for the purpose set forth.

I also claim in combination with the lever *n*, pawl *m*, bar *o*, and curved portion *r*, the sliding bar M, arranged as shown for the purpose specified.

No. 20,224.—SOLOMON P. SMITH, of Crescent, N. Y.—*Improvement in Straw Cutters*.—Patent dated May 11, 1858.—In the engraving A



is the straw box mounted upon a frame K. The mouth B is provided with a fixed metallic shear plate D along its lower side for the knife E, fast on the arm C, to work against. L is a recoil spring, arranged so as to enable the operator to employ the surplus momentum of the knife-arm to cause the return of the same to its elevated position o, (figure 2,) ready for a new stroke.

*Claim.*—The arrangement of the arm C, knife E, and recoil spring L, with straw box A, when constructed for operation conjointly in the manner and for the purpose set forth.

No. 20,361.—OREN MOSES, of Malone, New York.—*Improvement in Straw Cutters.*—Patent dated May 25, 1858.—The journals *c c* of the tooth feeding roller F, are received into the slots *m m*, in the guard plats *g g*, and in the upper ends of the legs *h h*; the said journals *c c* are connected to the driving shaft *a* by means of the properly perforated metallic plates *e e*, which are received into recesses between the guard plates *g g*, and the inner side of the upper portions of the legs *h h*, which allows the roller F to rise and fall without changing the distance from driving shaft *a*, or interfering with the working of the gearing.

*Claim.*—The inventor says: I am aware that a toothed vibrating feeding roller has been used in straw cutters in conjunction with a rigid cleaning comb, and therefore I *claim* the arrangement of the bridle pieces or connecting plates *e e*, attached to cleaning comb *d*, with driving shaft *a*, and journals *c c*, of feeding roller F, the whole being constructed for operation conjointly with feed-box A, rest *l*, shaft *b*, disk T, and knives *l*, in the manner and for the purposes set forth.

No. 20,582.—CHARLES P. PERRY, of Norristown, Pa.—*Improvement in Straw Cutters.*—Patent dated June 15, 1858.—This invention relates to improvements in that class of straw cutters in which revolving knives, a feed roller, and a plain roller are used. This invention consists in so connecting and gearing together the shafts of the said cutters and rollers by peculiar combination and arrangement of links and cog-wheels that the feed roller may yield and change its position as regards that of the plain roller, without disturbing the movement and operation of the machine.

The inventor says: I do not claim the upward cut of the knives, neither do I claim, broadly, allowing the feed roller *d* to yield more or less from the roller *e*, and at the same time to continue its rotary motion.

But I *claim* the shaft E, with its pinions J, the shaft Z, with its wheel R, and the spindle P, with its pinion K, when the said shafts are linked together, and the said wheels and pinions are arranged with respect to each other substantially as and for the purpose set forth.

No. 20,958.—ROBERT SINCLAIR, jr., of Baltimore, Maryland.—*Improvement in Straw Cutters.*—Patent dated July 20, 1858.—The claim and engraving explain the nature of this improvement.



*Claim.*—The described arrangement of the teeth *a a* upon the masticating and propelling cylinder *b*, constructed with the nodular projections on either side, and operating like molar teeth to propel and crush the fodder, as set forth.

No. 21,110.—DARIUS BABCOCK, of Dryden, New York.—*Improvement in Straw-Cutters.*—Patent dated August 10, 1858.—On each axis is a shaft *a* of the feed rollers D D a lever F is placed, said levers being allowed to turn or work freely on the shafts, and to each lever a pall G is attached, the palls catching into the ratchets E. On each lever a sliding collar *b* is placed, said collars being secured at any desired point by set screws *c*. To each collar *b*, a connecting rod H is attached, and to the upper ends of these rods are attached a crank wheel *d*, by one and the same pin *e*. The crank wheel *d* gears into a wheel I, which is placed at one end of a shaft J at the upper end of the framing A. On the shaft J, at about the centre, a bevel wheel K is placed.

*Claim.*—Operating the feed rollers D D through the medium of the levers F F, rods H H connected with said levers by means of the sliding collar *b*, palls G G, and crank pulley *d*, arranged substantially as described and for the purposes specified.

No. 21,954.—OLIVER C. GREEN, of Dublin, Indiana.—*Improvement in Straw-Cutters.*—Patent dated November 2, 1858.—This invention relates to a straw-cutter, having a V-shaped box, armed with knives at its front end, adapted to cut shear-wise with the knife on the sliding gate, and consists in a certain arrangement of parts to facilitate the operation of cutting.

*Claim.*—The described arrangement of the hinged connecting rod P, lever G, spring H, pin I, sliding gate D, and oblique knife E, with the V-shaped knives *b* at the ends of the trough B, for the purpose set forth.

No. 21,970.—JAMES LASHBROOKS, of Rockport, Indiana.—*Improvement in Straw-Cutters.*—Patent dated November 2, 1858.—This invention consists in placing series of toothed circular blades on parallel rollers fitted within a hopper, the blades being arranged relatively with each other, and with the clearing prongs, so that the desired work may be done rapidly without danger of clogging or choking the machine.

*Claim.*—The two rollers B B, provided with the circular toothed blades C, in combination with the clearers *b*, the whole being arranged to operate as and for the purpose set forth.

No. 22,072.—WILSON GREEN and MALCOM McFISHER, of Chattanooga, Tenn.—*Improvement in Straw-Cutters.*—Patent dated November 16, 1858.—A is the treadle, B the knife, *a* the connexion of the knife with the lever or treadle, C the double-leafed wooden spring, and *c* the connexion of the lever with the spring which elevates the knife; D is a leather strap on the end of the treadle, forming a stirrup in which the right foot is placed to adjust the spring to raise the knife



should it, from any cause, become wedged between the jaws when the cut is made.

E is a lever worked with the right hand, and serves to press the straw firmly into the box while being cut, causing the knife to cut much easier; F is an upright in which both levers work; G is a board attached to the treadle, moving up and down in front of the knife, regulating the length of cutting the straw.

*Claim.*—The arrangement of the treadle A, leather strap D, the regulating board G, and knife B, combined with the double-leafed lever C, lever E, and upright standard F, for joint operation, as set forth and described.

No. 22,207.—PETER VANDESANDE, of Rochester, N. Y., assignor to Himself and MARTIN VANDERWEN, of Rochester, N. Y.—*Improvement in Straw-Cutters.*—Patent dated November 30, 1858.—The thread of the worm or screw H is deeply cut, and the spur teeth on the wheel I are permanent, so that the variation in the position of I, as the gate rises, does not throw it out of gear.

*Claim.*—Operating the feed rollers I J by means of the worm II on the shaft of the cutter-wheel, when combined to the adjustable feed gate K, pressure plate L, and weighted lever M, for regulating the pressure of the feed, and preventing the choking of the rollers, and keeping the straw uniformly compressed at the point of cutting during the progress of the knife, substantially as set forth and described.

No. 22,336.—OLIVE ANN BROOKS, of Somersworth, N. H., administratrix of the estate of LEBBEUS BROOKS, deceased, late of Great Falls, N. H.—*Improvement in Straw-Cutters.*—Patent dated December 14, 1858.—This invention will be understood by an examination of the claim and engravings.

The inventor says: It is not intended to claim a rotary cutter cylinder and a roller for the cutter to work against, to feed and cut straw; nor is it intended to claim the feeding and cutting straw in the manner described in the specification of the United States patent numbered 13,807, wherein the knife has a compound motion composed of two circular motions, and operates in conjunction with a roller; nor is it intended to claim a rotary cutter cylinder or set of cutters and a swinging bed operating together, as shown in the United States patent 12,699; nor is it intended to claim a straw-cutting machine, as constructed in such a manner that its bed and knife shall each operate with a compound motion as described in the United States patent numbered 18,084.

But what is *claimed* as the invention of said Lebbeus Brooks is, an improved straw-cutting machine, as constructed of two cutting knives or shears I M, or their equivalents, and so that while one of them, when the machine is in operation, shall have a compound motion whereby its cutting edge shall be made to move in an elliptical path toward and away from the trough B, the other shall have only a reciprocating motion in a circular arc toward and away from the said trough, the lever frame carrying the lower knife or bed being made



to turn on a fulcrum rod or its equivalent, and to be connected with the upper knife by means or mechanism essentially as described.

Also, the application to the upper knife, having a compound motion as described, of a toothed rake *N*, to operate therewith and facilitate the feeding of the straw forward in manner as specified.

No. 20,976.—LEONARD ELLIG, of Mill Creek Township, Lebanon county, Pa., assignor to ANDREW GARRET, of Myerstown, Pa.—*Improvement in Straw-Shakers*.—Patent dated July 20, 1858.—The slide cap *a* is so constructed as to slide up and down the side-boards *m m*<sup>1</sup> and secured at any place. The movable bottom *w* is perforated for the purpose of relieving the grain from the straw, and is suspended on four arms at any desirable angle. The arms are of equal length.

The inventor says: I *claim*, first, the movable bottom *w* in combination with the arms 4 and 5 and spring *p*, as set forth in the specification.

Second. The movable cap *a*, adjusted as described and for the purpose set forth.

No. 21,111.—N. J. BECKER and J. M. HARVEY, of Amsterdam, New York.—*Improvement in Machines for Threshing and Separating Grain*.—Patent dated August 10, 1858.—The nature of this invention consists in a novel combination of parts operating in unison for actuating the threshing cylinder, blast fan, straw carrier, and separating screens, by one and the same main driving belt, in a positive and advantageous manner; in a new mode of means for changing the direction of the blast to operate portions of the separator and transverse of the grain through the machine to suit heavy or light grades of grain; and also in causing the reciprocating perforated bed and conducting board of the straw carrier to give an accelerated motion to the serrated bar frame of the carrier simultaneously with the travel of the bed, but in reverse directions to it, for the more effectual separation of grain in the straw and escape of it to the conducting board of the separator, and for more regular and rapid discharge of the straw.

The inventors say: We *claim* the combination of the swinging arm or arms *S S*, straw carrier brackets or projections *m m*, elbow lever *T*, connecting by links *n p* the swinging arm *S* to the separator, pitman *v v* operated by crank pin from the fan shaft to drive the swinging arm *S*, and fan and threshing cylinder pulleys *D E*, arranged substantially as described, and driven by the same band or belt as set forth.

We do not claim the combination of a reciprocating or independently moving perforated straw carrier with a stationary bed plate, but as gearing the serrated bar frame *G* to the perforated bed plate *H* and conducting board *I*, that said latter portion shall give an accelerated motion to the bar frame *G* simultaneously with but in reverse directions to the travel of the bed plate, essentially as and for the purposes set forth. Providing the feeding throat of the thresher or thresher concave with a dust spout or outlet *Z* above, and furnishing the cylinder race with a dust passage *X* in front, under the feed table, as shown and described.



No. 19,148.—P. W. MILLS, of Conneaut, Ohio.—*Improvement in Threshing Machines*.—Patent dated January 19, 1858.—This invention consists of a ribbed threshing cylinder, having one end of greater diameter than the other, and a corresponding concave in combination with a winnower, for the purpose of threshing and winnowing grain at one operation, and for delivering the straw from the tail of the screen in regular order for binding. The heads of grain and butts of the straw being conducted abreast from their entrance of the machine to their delivery.

*Claim*.—The ribbed cylinder D having one end of greater diameter than the other, with the corresponding concave E, when employed in connexion with the winnower, provided with the screen N, for the purpose of threshing and winnowing grain, and delivering the straw at the tail end of the machine, in regular order for binding, as set forth.

No. 19,865.—JOHN R. MOFFITT, of St. Louis, Missouri.—*Improvement in Threshing Machines*.—Patent dated April 6, 1858.—This improvement consists in the construction and arrangement of the frame H, in which the multiplying gearing, which imparts motion to the threshing cylinder, whereby the said gearing is maintained in position for effective action, in any condition of the machine.

*Claim*.—The construction and arrangement of the metallic gearing frame H, provided with arms *h h*, and attached to the machine, substantially as explained.

No. 20,449.—HAMILTON E. SMITH, of Philadelphia, Pennsylvania.—*Improvement in Threshing Machines*.—Patent dated June 1, 1858.—This invention consists in arranging the concave E of a threshing machine, in respect to the spiked roller G, in order that the stalks of the grain may pass freely and unbroken, while the heads are being acted upon by the cylinder D and concave E.

*Claim*.—Arranging the concave of a threshing machine in respect to the spiked roller, substantially as set forth, in order that the grain may be operated in the manner specified.

No. 21,214.—SAMUEL D. REYNOLDS, of Lane, Illinois.—*Improvement in Threshing Machines*.—Patent dated August 17, 1858.—To obviate the necessity of preliminary band cutting, and enable the sheaves of wheat or other grain to be fed directly into a threshing machine, is the object of this invention.

This is accomplished by placing in suitable bearings a cutting and spreading cylinder A immediately in front of the threshing cylinder B, of a threshing machine, and imparting a rotary motion to the said cutting and spreading cylinder, by any suitable means, either by banding or gearing. The band cutting in this machine is performed by a series of blades *d d*, which radiate from the central portion of the cylinder A, and whose cutting edges may be of such shape as will enable them to perform their work in the most perfect manner.

The inventor says: I do not intend to limit myself to a single series of band-cutting blades upon the periphery of the cylinder A, for the reason that I may find it expedient to combine several series of cutting



blades and spreading teeth with the periphery of said cylinder. The said cutting and spreading cylinder may be used in conjunction with any description of threshing cylinder.

I *claim* arranging a band-cutting and stalk-spreading cylinder, with the threshing cylinder of a threshing machine, substantially in the manner set forth.

No. 21,963.—ABRAM JACKSON, of Lebanon, Tennessee.—*Improved Threshing Machines*.—Patent dated November 2, 1858.—This improvement relates to travelling threshers and winnowers, and is intended to be employed with a common farm wagon. It consists in the mode of gearing or attaching the thresher and winnower to the wagon, and also in the mode of supporting the frame of the former upon the axles of the wagon, which forms the driving power.

*Claim*.—The arrangement of the band wheels D upon the spokes of the wagon wheels, in connexion with the hounds F, substantially as described for the purposes set forth.

No. 22,141.—MOSES D. WELLS, of Morgantown, Virginia, and HARRISON HAGANS of Brandonville, Virginia.—*Improvement in Threshing Machines*.—Patent dated November 23, 1858.—The nature of this invention consists in the combination of a peculiarly notched rib, with a bifurcated spike upon the cylinder.

*Claim*.—The combination of the bifurcated spikes *a* of the cylinder, with the peculiarly notched ribs R of the concave, operating together as described.

No. 20,892.—JOB E. OWENS, CLARK LANE, and ELBRIDGE G. DYER, of Hamilton, Ohio.—*Improvement in Endless Chains for Threshing Machines*.—Patent dated July 13, 1858.—This invention consists in forming a chain out of malleable cast iron links of two forms, each of the alternate links being exactly alike and capable of being united into a chain without heating, and without any pieces or parts which are not cast with it, and a part of the link itself.

*Claim*.—A chain composed of two different kinds of malleable cast iron links, when constructed in all their parts, as represented, for all the purposes mentioned in the specification, and when the alternate links of chains are the duplicates of each other throughout the series, and the two kinds of links united in the manner and for the purposes set forth.

No. 20,474.—PELEG BARKER, of Moscow, Michigan.—*Improvement in Machine for Measuring, Registering, and Receiving Grain Direct from Threshing Machines*.—Patent dated June 8, 1858.—The manner of using the machine consists of setting it on the ground or floor beside the threshing machine in such a manner that the spout from the separator shall be placed in the hopper, and when one measure is full it is removed by shoving in the other measure, which pushes the full one out of the left end of the machine, the measure being then taken up, and the end of the bag being drawn over the end of the measure,



the latch is touched by the finger which opens the door and empties the measure.

The inventor says: I *claim* the combination and arrangement of the parts, substantially as described, for receiving, measuring, and registering grain direct from threshing machines.

I also claim in combination with the machinery for registering, substantially as described, two or more measures or boxes, constructed and operated as described, for receiving the material to be measured.

No. 21,628.—F. W. ROBINSON, of Richmond, Indiana.—*Improvement in Riddles for Threshing Machines*.—Patent dated September 28, 1858.—In other riddles, while the lips or tongues turn up, pointing backward, in this invention they turn downward and forward, and while these are left for the purpose of preventing the straw and chaff from passing through the riddle, in this invention they are for the purpose of deflecting the wind upward, thereby lifting the straw and chaff, and separating them from the grain; the wooden slats being used to prevent the passage of the chaff and straw.

*Claim*.—The plate C, with lips or tongues *c c c c*, as shown and described, in combination with slats B B B B, for purposes set forth.

No. 21,367.—F. W. ROBINSON, of Richmond, Indiana.—*Improvement in Straw Carriers of Threshing Machines*.—Patent dated August 31, 1858.—The object attained by this invention is the prevention of the straw from passing down through the endless chain of slats and choking the riddles.

The platform F forms a sort of diaphragm immediately below the upper part of the endless chain of slats D, closing the entire area of the interior of the straw carrier.

The inventor says: I am aware that a platform or table has been previously combined with one endless chain of slats, in a manner somewhat similar to mine, though for a dissimilar object, as in the case of J. C. Birdsall's clover huller, of May 18, 1853; such parts, therefore, of themselves, I do not claim.

But I *claim* the combination of the perforated platform F, with the endless chain of slats D, in the manner and for the purposes set forth.

No. 19,357.—JOSIAH FOSTER, of Sandwich, Mass.—*Improvement in Tree Protectors*.—Patent dated February 16, 1858.—The nature of this improvement will be understood by referring to the claim and engravings.

The inventor says: I do not claim surrounding the trunk of a tree by a trough to contain a liquid, and so that such liquid may present an impediment or barrier to the passage of insects or worms across the trough.

But what I do *claim* is arranging the trough around the tree so that there may be a clear space for the passage of insects or worms between it and the tree, and suspending the said trough from the body of the tree by means of an elastic or flexible elastic cover of cloth or other suitable materials, extending around and affixed at its upper edge or part to the trunk of the tree, and at its lower edge to the trough, the



whole being substantially in manner, and so as to operate as and for the purposes above specified.

I also claim in connexion with a flexible cover applied to the trunk of the tree as described, making the circumventing trough in two or more sections or separate troughs so jointed or applied together at their abutting ends as to be capable of being tipped, so as to enable their contents to be discharged in manner as set forth.

No. 21,057.—W. H. ANGEL and M. COFFEEN, of Watertown, N. Y.—*Improvement in Wheat Separators*.—Patent dated August 3, 1858.—The object of this invention is to separate the perfect grains of wheat from all impurities, which is effected by an arrangement of perforated plates ; in this arrangement mainly this invention.

The inventors say : We *claim*, first, the arrangement of the three perforated plates, having holes of the same diameter or area, and placed at the same inclination with the fourth perforated plate, having holes of a less diameter or area than the other plates, and at a greater inclination, as set forth.

Second. We claim the spring bar or rod P and yoke R, in connexion with the plates Z and bars N, at the other end of the plate box, for giving to the plate box the compound motion, as described.

No. 19,615.—HENRY H. BEACH, of Philadelphia, Pa.—*Improvement in Grain Winnowers*.—Patent dated March 16, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says : I *claim*, first, the bottom delivery board F, having one or more series of fingers at its lower end, when the same is vibrated in a vertical direction, the blast of air from the fan acting upon the fingers in the manner described and for the purposes set forth.

Second. The combination of the series of inclined planes S S<sup>1</sup>, with the shoe O, and fingers M M<sup>1</sup>, when arranged in relation to each other, and to the cover B and partition C, as described, for the purpose of deflecting the blast of air from the fan and directing it through the riddle and through the fingers, as set forth.

No. 19,905.—ALFRED BELCHAMBER, of Ripley, Ohio.—*Improvement in Chaff Screens for Winnowing Machines*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says : I do not claim forming chaff screens for winnowers by punching sheet metal plate, so that burs may be formed and turned up, for this has been previously done.

But I *claim* constructing the screen of sheet metal plates or strips *a*, bent or turned over at one edge, and slitted or cut at the opposite edge, so that portions *c d* may be bent up as shown, the plates being secured in the frame or between the sides A A, so as to overlap each other, and the whole arranged substantially as and for the purpose set forth.

No. 21,087.—JOSEPH H. RIGGS, of Gloucester, Mass.—*Improvement in Ox Yokes*.—Patent dated August 3, 1858.—The object of this inven-



tion is to retain all the advantages of lightness, cheapness, and durability possessed by the common yoke, and yet render the point of draught adjustable.

A is the yoke with its bows made similar to those in common use; to the lower end of the yoke is attached a rack *a*; this may be a simple plate of metal cast of the required form and of a width equal to the yoke. Another rack *b*, the teeth and grooves of which correspond to those of the rack *a*, is furnished with lips or flanches *c*, which are turned up on each side and lap over the edges of the rack *a*; these lips are notched out at the middle of their length to receive a staple *d*.

*Claim.*—The racks *a* and *b*, arranged and operating in the manner substantially as set forth, for the purpose specified.

No. 21,392.—GEORGE W. WEEKS, of Boston, Massachusetts.—*Improvement in Ox Yokes.*—Patent dated August 31, 1858.—The nature of this invention consists in making ox yokes and bows hollow, of iron or other suitable material, so as to be as light and strong as possible. B B are the bows, H the draught ring, and F the link.

*Claim.*—Making ox bows and yokes of iron or other suitable material, hollow, substantially as described, for the object specified.

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## II.—METALLURGY.

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No. 22,245.—LEWIS SOLOMON, of New York, N. Y.—*Improved Amalgamator.*—Patent dated December 7, 1855.—This invention consists in constructing a machine in such form and manner as to prevent the mercury used in the amalgamation of ores from flowing along the lower side of the cylinder in advance of the ore, and insure a more thorough searching of the ore by the mercury.

The inventor says: I *claim*, first, the use of elongated amalgamating chambers I, when arranged to operate in the manner and for the purposes specified.

Second. The arrangement of the amalgamating chambers I within a heated chamber A, for the purposes specified.

No. 19,246.—JOSEPH H. FISHER, of Placerville, California.—*Improved Gold Amalgamator.*—Patent dated February 2, 1858.—This invention consists in placing a cylinder E, having a face of silver or other metal which readily amalgamates with mercury, within a wheel D, which is placed in a box B, the face of the wheel being open or formed of bars or slats *g*, and the whole arranged so that the wash from the crusher is made to fall upon the silver face *j* of the cylinder.

The inventor says: I *claim* the employment of a rotating cylinder, having its face or periphery of silver or other suitable metal, and placed within a wheel D, or arranged in any suitable or equivalent way, so as to receive the wash from the crusher, and unite, by amal-



gamation, the globules of alloy that escape with the wash from the crusher, as described.

No. 21,204.—SAMUEL LONGMAN, of Brooklyn, New York.—*Improvement in Amalgamating Gold and Silver*.—Patent dated August 17, 1858.—The inventor, in describing his improved amalgamating machine, says: It is composed principally of an annular trough A to receive the metallic substance to be treated together with the quicksilver, and a water cylindrical roller or edge-runner B, which is fitted to turn on a horizontal axle C, which is attached to a vertical shaft D, which rotates in the center of the trough A, and carries the roller round and round the trough. The shaft D has also attached to it two scrapers or agitators *a b*, which stir the contents of the trough in front of the roller; while the roller is passing over the substances behind the scrapers work them together.

The inventor says: I do not claim as my invention the machine herein described, and I do not confine myself to the use of my particular machinery or apparatus in performing my invention.

I *claim* masticating or kneading, in the manner set forth, the dry mataliferous powder of the gold and silversmith's sweeps, scraps, and polishings, or the native precious metals, when so prepared with quicksilver, when sprinkled with barely sufficient water to cause the mass to agglutinate.

No. 19,901.—HERRICK AIKEN, of Franklin, N. H.—*Improvement in Awls and Tools*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the form, shape, construction, combination and arrangement of the set of awls and tools, (twenty in number,) as described in the specification and represented in the drawings, for the purpose of connecting them with a handle, having a receptacle in the large end to contain the said awls and tools, and a socket and gripe secured in the other, and to confine and hold the several awls and tools for use as occasion may require.

I also claim making the shanks of the awls and tools square with parallel sides serrated and equal in size, for the purpose of inserting them into a gripe connected with a handle, the shanks being serrated so that the gripe will hold them more firmly for use than if the shanks were made plane without the serrating; and these improvements in awls and tools I claim when used in any kind of socket and gripe for holding and changing them.

No. 20,957.—GEORGE REYNOLDS, of Manchester, N. H.—*Improved Machine for Making Axe Polls*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim broadly the method described of manufacturing an axe poll, by compressing a bar of metal between dies or swages projecting from the face of the rolls in which they are set. Neither do I claim as new the use of a die provided with a groove or recess in which the head of the axe poll is to be formed.

But I *claim*, first, the use of a drawing die D<sup>1</sup>, provided with pro-



jections  $o$   $o^1$   $o^2$   $o^3$ , or their equivalents, substantially as described, so that the blank of metal when subjected to compression shall be thereby drawn out furthest at the corners, whereby the bit can be more completely welded into the poll, and the eye of the axe in consequence be made more perfectly, as set forth.

Second, I also claim making the lower die D, with a recess or groove across its face, of the form substantially as described, so that the metal which forms the head of the axe poll shall be thereby crowded toward the edges of the head instead of being piled into a ridge in the middle, and at the same time a greater proportion of metal be forced into the back of the head, as and for the purposes specified.

Third, I claim the combination of the feeding fingers I I<sup>1</sup> I<sup>2</sup>, or their equivalents, with one or more cams J J<sup>1</sup>, or their equivalents, so arranged and operated that at the proper moment of time the blank of metal can be by the machine automatically fed between the dies, to undergo the several operations to which it is to be subjected, as described.

Fourth, In combination with the dies or rolls, an adjustable guide S S, and gauge R, either with or without the spring fingers V V, Fig. 7, for the purposes specified.

Fifth, The compressing clamp for holding the axe poll, and shaping the head of the axe, during the operation of bending, constructed and operated in the manner and on the principle substantially as described.

No. 20,780.—ZINA DOOLITTLE, of Perry, Ga.—*Improved Machine for Upsetting Carriage Axles*.—Patent dated July 6, 1858.—To operate this machine extend the clutches F F, then place the tire upon the slides I I with the hot part on the rest L, the weight of the tire or axle depresses the slides I I and releases the clutches F F, which strike against the axle, pressing it against the dies G G; then apply one of the hand levers D, which causes the clutches F F to take a firm hold on the iron and compresses it in part; then apply the other hand lever D, keeping the first lever raised in the meantime, and when the iron is sufficiently compressed drop the hand levers D D, and as the springs K K extend the jaws B B, the clutches let go their hold.

The inventor says: I *claim*, first, the arrangement of the centre bar or anvil A L, pivoted jaws B B, and eccentric levers D D, in the relation to one another shown, for the purposes set forth.

Second, The combination with the above of eccentric clutches F F, dies G G, springs H H, and slides I I, substantially as and for the purposes set forth.

No. 19,940.—WILLIAM MAURER, of New York, N. Y.—*Improved Bar for Securing Bank Vaults*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the attachments of hooks to a sliding piece or bar, broadly, as this has been proposed before.

But I *claim* attaching on the inner side of a movable cross bar, by which vaults or safe doors are secured and strengthened, a sliding piece provided with hooks and so arranged that said sliding piece may be operated after the bar is in its place, for the purpose of firmly con-



necting by means of said hooks the bar with the door and the door frame, or with both doors where double doors are used, in the manner as described.

Secondly, I do not claim the mode of *hinging* a bar to the door or door frame generally.

But I *claim* the arrangement and use of a revolving hinge plate, to which the bar for securing and strengthening doors is attached, constructed in the manner and for the purposes specified.

No. 19,261.—THOMAS E. PURCHASE, of Reading, Pa.—*Improvement in making Railway Bars*.—Patent dated February 2, 1858.—The nature of this improvement consists in forming a hollow or groove in the top layer of the pile, which is to be of sufficient size to form the entire head of the rail, and providing the layer in contact with the top with a projection conforming to and fitting into such groove, or *vice versa*. The shape of the groove is immaterial, the object being to prevent displacement of the layers in charging the pile into the heating furnace.

The inventor says: I *claim* the manufacture of railroad rails from a pile, the top bar of which is of a superior quality of iron, immovable laterally, and sufficiently heavy to give the rail, when rolled, a consolidated head, connecting with the lower layers in the stem of the rail, substantially as set forth.

No. 20,128.—BENJAMIN PITCHER, of Peoria, Ill., assignor to himself, WILLIAM TOBEY, and JOHN ANDERSON, of said Peoria.—*Improvement in Bending Mould Boards for Ploughs*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The combination of the stationary die B, with the movable die C hinged to the stationary, and constructed and arranged as described, so that the heated metallic plate subjected to their action is, during the process of being bent into shape, gradually compressed and drawn from its inner to its outer edge, and retained under compression until the entire bending is completed, for the purpose described.

No. 21,638.—JAMES A. DORMAN and JOSEPH E. STEARNS, of Worcester, Mass., assignors to JAMES A. DORMAN aforesaid.—*Improved Blind Operator*.—Patent dated September 28, 1858.—To operate this improvement after it has been attached to the window frame, grasp the knob E with the hand, at the same time press the head of the rod G in with the thumb; this will push the slide piece H out of the recess *m*, the catch plate D and the shaft will be free to turn in either direction, at the same time it will move the blind in an opposite direction by means of the bevel gears. To fasten the blind, remove the thumb from the head of the rod G, and the spring K will press the piece H into the recesses of the catch plate D, which recesses are so arranged as to hold the blind at any desired place.

The inventors say: We do not claim an inside blind operator as such.

But we *claim*, first, the combination of the rod G, slide piece H, and



spring K, with the catch plate D and knob E, when constructed and operating substantially as described.

Second. The manner of holding the blind down in place by combining with the stud R, the projection S fitting into the recess T, as specified.

No. 22,172.—L. N. FAY and WILLIAM MASON, of West Warren, Mass.—*Improved Blind Operator*.—Patent dated November 30, 1858.—The object of this invention is to obtain a simple device whereby a window blind, by simply turning a knob, may be opened and closed at the inside of a window, and also retained at any desired point without raising the sash, and the blind slats also adjusted, or opened, or closed by the turning of the same knob when the blind is in a closed state.

*Claim*.—The spirally flanged plate F, and worm wheel G, when attached to the sill A, and used in connexion with the slotted bar H, stop *q*, and the slat adjusting device formed of the arms *j k*, shaft *i*, and spring *o*, the whole being arranged to operate as and for the purpose set forth.

No. 19,751.—JOHN E. CLOKEY, of Washington, D. C.—*Improvement in opening and closing Outside Blinds*.—Patent dated March 30, 1858.—The blind is opened and thrown back by pressing the handle O down, (this relieves the lever *d* from the catch *l*,) and then moving the handle horizontally from the side of the frame towards its centre. By removing the downward pressure the lever falls into the catch *k*, and the blind is secured in its open position.

The inventor says: I am aware that blinds and shutters have been opened and closed from the inside by various complicated contrivances; but this I do not claim broadly.

I *claim* the combination of the bent levers *d* with the bars *g*, when they are constructed, arranged, and operated in the manner described and for the purpose specified.

No. 19,891.—JOHN WOOLMAN, of Philadelphia, Pa.—*Improvement in Door Bolts*.—Patent dated April 6, 1858.—The nature of this invention consists in the use of a flat or elliptical bolt, confined in a casing or straps of such shape and construction as to allow said bolt, after being entered to its required place for fastening in the catch or socket to be moved with an eccentric motion, by means of a handle or lever, from its position when so entered to any required angle with said surface, so as to draw firmly together the respective surfaces to which the said bolt, and the socket for receiving it are attached, and holding them in that position.

*Claim*.—The arrangement of the flat or elliptical bolt A, contained and moving within suitable straps or casings, with an eccentric motion, when operated and moved by means of the handle or lever B, substantially as described.

No. 19,485.—HENRY CARTER, of Pittsburg, Pa.—*Improved Bolt Machine*.—Patent dated March 2, 1858.—The nature of this invention will be understood by reference to the claim and engravings.



The inventor says : I *claim*, first, The use of a stationary heading tool arranged centrally to the converging dies, in the manner substantially as described.

Second, The use of a swinging hammer for upsetting the head in combination with the converging side dies and corner dies, arranged and operating substantially as described.

No. 21,279.—ELISHA SIMKINS, of Alleghany, Pa.—*Improved Bolt Machine*.—Patent dated August 24, 1858.—The nature of this invention consists in a mechanical arrangement for adjusting the dies removing the bolts, stopping, starting, and regulating the stroke and force of the hammer ; and also in arrangement for relieving the machinery from the concussion produced by the action of the hammer.

*Claim*.—First, the flexible connecting rod *h* and the arrangement of the cylinder *e*, the spiral springs *f* and nuts *g*, as described and for the purpose set forth.

Second, The arrangement of the lever *i*, the ratchet *j*, the bevel wheels *k* and *K*<sup>1</sup>, the screw *y* and the cross head *d*, when used in connexion with the flexible connecting rod *h*, as described and for the purpose set forth.

Third, The arrangement of the compound lever *u* and the pulleys *v*, in connexion with the lever *t* and stop *r*, as described and for the purpose set forth.

Fourth. The arrangement of the stud 15, the stop *r* the levers *p* and *q* and the bolster *l*, as described and for the purpose set forth.

No. 20,149.—GEORGE W. DEVIN, of Ottumwa, Iowa.—*Improved Ring Bolt*.—Patent dated May 4, 1858.—The nature of this invention consists in the employment or use of a slide bolt *A* with ring *C* attached, and used in connexion with a spring *D* socket or “nosing” and guide.

The inventor says: I do not claim separately a slide bolt and spring, for that is a common and well-known fastening.

But I *claim* the slide bolt *A*, provided with the spring *D*, and ring *C*, and secured to the door substantially as shown, in combination with the socket or nosing *E*, provided with apertures to receive the shackle of a padlock, the whole being arranged as and for the purpose set forth.

No. 20,940.—EDWARD DOEN, of New Britain, Conn.—*Improved Spring Bolt*.—Patent dated July 20, 1858.—The claim and engravings explain the nature of this improvement.

*Claim*.—The combination with the guided sliding bolt *A* and surface-plate *B* of a loose or freely arranged spring *S* let into the body of the bolt, and protected or encased thereby for operation on at points some distance apart, and with the bolt and against the surface-plate, substantially as described, for the purpose set forth.

No. 21,910.—C. L. STEVENSON, of Charlestown, Mass.—*Improved Machine for Drawing Bolts*.—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.



*Claim.*—A machine for drawing bolts from timber, consisting essentially of the rotating toothed wheel D which is forced up by the bolt by the pressure applied through the roll E or its equivalent.

No. 22,470.—JOSEPH L. CHAPMAN, of Philadelphia, Pa., assignor to Himself and GEORGE CHAPMAN, of said Philadelphia.—*Improved Turn-buckle for Window-blinds.*—Patent dated December 28, 1858.—The object of this invention is to obtain a fastening that will secure window-shutters, or blinds, in an open state without allowing the same to play, or rattle, and at the same time accommodate itself to shutters, or blinds of different thicknesses, and one also that will not be liable to work loose in a building by the action of the shutter or blind upon it when thrown open.

The inventor says: I *claim* the turn-buckle F and sliding-collar D provided with the flanch *b*, and the spring E placed on the spindle, or arbor A, the whole being arranged to operate substantially as and for the purpose set forth.

I also claim, in combination with the abovenamed parts, the washer C placed on the arbor A for the purpose set forth.

No. 19,988.—CHARLES FRAMPTON, of Brooklyn, N. Y.—*Improved Burnisher.*—Patent dated April 20, 1858.—From the quadrant towards the handle, the surface of the burnisher is made nearly flat for the distance of about an inch, commencing at the sharp edge, at one end of the burnisher and continuing the same up over the rounded and flat part thereof towards the handle, two or more grooves are cut rounded in cross section at the bottom, leaving three or more ribs at their sides, rounded in cross section on their tops. These grooves and ribs should be of uniform depth and height throughout, except at their termination towards the handle the grooves should slope up easily into the flat surface. The engravings clearly illustrate the peculiarities of this invention.

*Claim.*—A burnisher for spinning screws, whose operative extremity is formed substantially in the manner described.

No. 22,452.—JAMES S. RAY, of East Haddam, Conn.—*Improved Burnishing Attachment for Lathes.*—Patent dated December 28, 1858.—The object of this invention is to facilitate the manipulation of the burnishing tool to such a degree that apprentices, females, and inexperienced persons may perform the desired work. A is the bed of the lathe, B B<sup>1</sup> are uprights or heads attached thereto, and C is a mandrel which is fitted in the heads. The lathe is of the usual construction. D is a standard which is attached to the bed of the lathe, a short distance in front of the end of the mandrel C, and a little at one side. To standard D a plate E is attached at right angles, said plate being parallel with the mandrel C, and extending nearly to the head B<sup>1</sup> of the lathe. The standard D and plate E are of metal, and the plate E has a circular opening *a* made through it, said opening having its inner edge about in line with the end of the mandrel. The guide plate F is so attached to the plate E as to admit of being adjusted thereon nearer to or further from the head B<sup>1</sup>. G is a



burnishing tool, formed by having a cylindrical head *d*, on a shank *e*, the outer end of the head *d* being flattened at two opposite sides *e*<sup>1</sup> *e*<sup>1</sup>.

*Claim.*—The arrangement and combination of the plate E, plate F, spring *k*, mandrel and tool G, as and for the purposes shown and described.

No. 21,304.—LE ROY S. WHITE, of Hartford, Conn., assignor to E. W. SPERRY, E. HURLBUT, and J. H. ASHMEAD, of said Hartford.—*Improved Burnishing Machine.*—Patent dated August 24, 1858.—The nature of this improvement consists in the construction and adaptation of machinery for burnishing spoons and other ware.

*Claim.*—The holding or rolling jacks H, and the oscillating or vibrating stock F, substantially in the manner and for the purposes described.

No. 22,459.—O. W. STOW, Southington, Conn.—*Improved Burring Machine.*—Patent dated December 28, 1858.—This invention consists in a novel manner of applying the gauge to the instrument, whereby the gauge is permitted to adjust itself with the lower roller, and compensate for all the wear of the journal of the lower roller shaft. The object of the invention is to prevent the difficulty attending the wear of the journal of the lower roller from the gauge, whereby the latter is frequently rendered useless or prevented from performing its proper function.

*Claim.*—The arrangement and combination of the spring K, gauge I and rollers G H, substantially as and for the purpose shown and described.

No. 21,796.—EDWARD CLARK, of New York, N. Y., assignor to WILLIAM H. DOLSON, of said New York.—*Improvement in Cans for Preserving Paint.*—Patent dated October 12, 1858.—This invention consists in forming a projection all around the interior of the body of the can, near the top and bottom thereof, by forming a groove round the exterior, and dropping the heads on to those projections, and turning the edges of the body over them. In this way the heads may be tightly secured without solder, and the use of untinned sheet-iron is permitted, and a sufficiently durable can or keg is produced at a less cost than a tin can or wooden keg.

*Claim.*—Attaching and securing the heads to the sheet metal body of the can or keg, by forming a projection round the interior near each end of such body, in the manner described, for the heads to rest against, and turning the edges of the body over the heads after the insertion of the latter, substantially as set forth.

No. 20,635.—SAMUEL FALKENBURY, of Susquehanna Depot, Pa.—*Improvement in Repairing Cast-iron Cylinders.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The uniting the old and new cast iron in the box of steam cylinders, which consists of drilling the broken parts for increase of expanding surface, and the application of a charcoal or other fire to



equalize the expansion previous to pouring the metal, in the manner set forth in the specification.

No. 20,022.—ROBERT POOLE, of Baltimore, Md., assignor to Himself and GERMAN H. HUNT, of said Baltimore.—*Improvement in Casting Car Wheels*.—Patent dated April 20, 1858.—The claim and engravings describe the nature of this invention.

The inventor says: I *claim* the base A of the flask made in sections, so that the centre one may be removed without disturbing the remaining one, for the purpose set forth.

I also claim the sectional cope C, so made that either section may be removed without disturbing the other one, for the purposes set forth.

I also claim in combination with the sectional base and cope the central member B of the flask, with a lining of some non-conducting material, substantially in the manner and for the purpose described.

No. 20,151.—DAVID FINLEY, of Champlain, New York.—*Improvement in Casting Car Wheels*.—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the heating of moulds in an oven or muffle before pouring the metal into them.

Nor do I claim the annealing of castings in their moulds, when that is effected by placing the moulds in an oven, or any receptacle that has been previously heated.

But I *claim* the heating of the knowel and cope of the flask, and parts of the mould contained therein, separately from the chill ring, then putting the whole of the flask and mould together, and either placing it in a box, or its equivalent, and surrounding it with non-conducting material within the said box, and after pouring the metal into the mould, burying the whole in a pit, or omitting the box, surrounding the flask and mould with the non-conductor in the pit, substantially as specified.

No. 20,395.—OLIVER T. WOOD, of Pittsburg, Pennsylvania, assignor to THOMAS R. WOOD, of Philadelphia, Pennsylvania.—*Improvement in Casting Faucets*.—Patent dated May 25, 1858.—This invention consists in placing the spigot of the faucet C within a mould A, which is formed for casting the body of the tube of the faucet, so that the body of the tube of the faucet may be cast around the spigot, and the latter accurately fitted thereby in place, without any after work or finishing.

The inventor says: I do not claim as novel the faucets in themselves considered, or as new articles of manufacture.

But I *claim* constructing the faucets by placing the spigots within a mould formed for the tubes of the faucets and casting the tubes around the spigots substantially as shown and described.

No. 20,948.—CONRAD M. LANE, of Cincinnati, Ohio.—*Improvement in Casting Hinges*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.



The inventor says: I do not claim forming the joint of the hinge by casting teats at the ends of the knuckles of one leaf into corresponding recesses in the ends of the knuckles of the other leaf, for this has been previously done.

But I *claim* casting substantially, as shown, the knuckles *a g*, of the respective leaves B D, so that the inner parts or sides of the knuckles will form parts of cylinders of smaller diameter than the outer parts to admit of the easy moving of the joint without additional labor or finishing as described.

No. 20,951.—CORNELIUS MCGINNIS, of Pittsburg, Pa.—*Improvement in Cast-iron Kettles*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Constructing the metallic core, as described, of three or more pieces *a a' b*, united by bolts *c c c*, so as to be readily detachable, one of which pieces is a narrow central strip, which may be removed after the kettle is cast, and before it is sufficiently cool to remove the entire core, for the purpose of allowing the contraction of the casting without danger of bursting.

No. 19,258.—F. NISHWITZ, of Brooklyn, N. Y.—*Improvement in Flasks for Casting Wheels*.—Patent dated February 2, 1858.—This invention consists in providing the flask A B with guides or sockets C D, of metal or wood of a proper size, to receive the shaft F snugly within them, and properly arranged to hold the shaft in its proper place within the mould, independently of the sand, thereby enabling the mould to be made more expeditiously, and the wheel to be cast more truly upon the shaft.

*Claim*.—The employment of guides or sockets C D, of metal or wood, attached to the flasks to receive and hold the shaft or axle within the sand mould, independently of the sand, substantially as and for the purpose set forth.

No. 20,955.—EDWIN H. PERRY, of Providence, R. I.—*Machine for making Chain*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the combination of a carrier on which the blank link is transported, a die or perforated plate, by which the arms of the links are bent inward, and a forming guide or tube, in which the chain is held and transmitted, as such combination is covered by the patent granted heretofore to Lauriston Towne, October 20, 1857.

But I *claim*, first. The perforated plate F, or its equivalent, in combination with a former for striking up the body of the link, the two so combined performing the function of enabling the link after it is struck up in the die, to be lifted out of the same for the purpose of being deposited in the next position necessary in the formation of the chain, substantially as described.

Second. I claim the arrangement of the slides *p p p*, for bending over the arms of each link after it has been struck up in the die.

Third. I claim constructing the end of the tube wherein the chain



is formed, in the manner substantially as described, so that it shall be enabled to perform the function of grasping the link when deposited in it, and retaining it at the same time, holding it firmly in place while the arms of the under link are being bent over it, as set forth.

Fourth. In combination with said tube, I claim the adjustable contracting collar, for the purpose of regulating the degree of resistance which must be overcome in forming the chain, by means of which the chain can be at pleasure woven more or less compactly, as set forth.

No. 21,362.—EDWIN H. PERRY, of Providence, R. I.—*Improvement in Machine for Making Chain*.—Patent dated August 31, 1858.—This invention has reference to an improved means of removing the link from the die after it has been struck up for depositing it in the next position necessary in the formation of the chain.

*Claim*.—The combination of a separating die *F F* with the tube, wherein the chain is formed, for the purpose of permitting each link of the chain after it has been struck into form to be transmitted to the tube, substantially as described.

No. 19,094.—WILLIAM J. LEWIS, of Pittsburgh, Pa.—*Improved Chain Making Machine*.—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The arrangement of the fork *m* with its groove *n* and springs *o o*, the levers *j j*, with their notched dies *t t*, and the forked springs lever *x*, when operating in relation to each other and to the mandrel *E*, substantially as described, whereby the bar composing the link is presented in an inclined position to the mandrel *E*, and closed or bent around the same spirally, and then discharged.

No. 19,955.—JOSEPH SNELLING, of East Boston, Mass.—*Improved Chain Shackle*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim a shackle or chain link made in four separate parts, arranged at right angles to each other, and held together by rivets, screws, and nuts.

But I *claim* the improved connecting shackle or link as made in two parts, *A B*, and with one of them formed in one piece as a double hook, and with a space *c* between its extremities, and with tenons *d d*, as described, and its other part constructed so as to extend into and fill the said space and lap over the hooks and receive these tenons, substantially as specified.

No. 21,088.—DANIEL N. SMITH, of Boston, Mass.—*Improvement in Chucks for Centering, &c.*—Patent dated August 3, 1858.—The object of this invention is to produce a machine by which a shaft or other similar article may be centered, or have a hole drilled in its end in the axis of the shaft, and at the same operation have its end turned off square, or in a plane at right angles to the axis of the shaft, or in any other form that may be desired.



*Claim.*—The described centering tool, consisting of the chuck C D, constructed and operating as set forth, in combination with the shafts G and I, arranged and operating as described.

No. 19,918.—JAMES EATON, of Townsend Harbor, Mass.—*Improvement in Cop Tubes.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—As a new article of manufacture a metallic cop tube, having corrugations or grooves *a a* upon its surface, formed by corresponding knife edges, or their equivalents, upon the face of the die in which the tube is made, as set forth.

No. 19,188.—E. L. EVANS, of Providence, Rhode Island.—*Improvement in Curry Combs.*—Patent dated January 26, 1858.—This invention consists in forming the teeth of the curry comb, which are connected to India rubber backs, entirely of India rubber or other similar substance, so that the back is not only rendered flexible, but the teeth also.

The inventor says: I do not claim separately the flexible back A.

But I *claim* constructing the curry comb with a flexible back A, formed of India rubber, and flexible teeth *a*, formed of the same material as the back, or other pliable or flexible substance which may be moulded with the India rubber, substantially as shown and described.

No. 19,937.—GEORGE W. MCGILL, of Buffalo, New York.—*Improved Door Fastener.*—Patent dated April 13, 1858.—The teeth *a a* on the crooked blade B are pushed into the door Z. The thumb-screw C is then drawn into the socket *d*, and the door is pulled to. Blade B, being shaped to the jamb of the door, allows it to shut. The gimblet-pointed screw C is then screwed into the jamb, and the door is secured.

The inventor says: I *claim*, first, the formation of the blade B, with its peculiar connexion with blade I.

Second. The use of the blade B, constructed as described, and operating in connexion with screw L, and blade I, and screw C, for the purpose specified.

No. 22,469.—GILBERT YATES, of West Dresden, New York.—*Improved Door Fastener.*—Patent dated December 28, 1858.—The nature of this invention consists in having the bolt (when turned at a right angle) pass through a slot in the face plate, which operation is accomplished by the hinge joint in said face plate.

*Claim.*—A door fastener constructed of the pieces A A<sup>1</sup> A<sup>11</sup>, bolt B, keeper C, and slot D, operating as set forth.

No. 22,234.—HENRY HACKMAN, Jr., of Paque, Pa.—*Improved Door Latch.*—Patent dated December 7, 1858.—The frame or latch box D D C, made as usual, having a partition piece B, dividing the interior into a lesser and a greater chamber. The pivot N of the bolt E enters the side A of the frame, supported in the partition B, and projects, with its notched end H, to the spring catch *o* on the door frame plate



S, through the front side C of the latch frame; on the bolt E are two upright levers G G, the external one having a peg, I, resting on the end of the coiled spring K, fastened by a screw N, or otherwise, in the upper inside corner of the end piece A of the latch frame.

*Claim.*—The revolving bolt E, the lever arms G G, peg I, coiled spring K, the shouldered shank I, and spring catch O, when combined and used substantially as described.

No. 20,570.—GEORGE H. LINDNER, of Hoboken, New Jersey.—*Improved Fastening for Double Doors.*—Patent dated June 15, 1858.—By this invention the hand bolts or fastenings which have hitherto been employed are dispensed with, and an automatic catch D D, which secures a door by merely closing it, is substituted, the security or fastening being complete when the door to which the catch or lock is attached is closed, and secured to the other door.

*Claim.*—The catches D D, having cams *b* attached to their inner ends, and arranged with the slides E, having springs *c* placed on them, in connexion with the plate *f* and springs *e*, the whole being applied to the door B, so as to be used in connexion with the fellow door C, substantially as and for the purpose set forth.

No. 20,381.—A. W. WEBSTER, of Waterbury, Conn.—*Improved Attachment for Opening and Closing Doors, &c.*—Patent dated May 25, 1858.—To the inner side of a blind or shutter a projection is attached, to which a pin is secured; this pin is fitted on the outer end of a slotted lever, the inner end of which is of a semi-circular form, provided with teeth which gear into a corresponding lever and pin on another blind or shutter, so that by moving one blind or shutter the other will be operated simultaneously in the same direction.

*Claim.*—The levers D D, pivoted to the lintel *d* of the casing or sill thereof, the inner ends of the levers gearing into each other, and the outer ends connected by the arms C to the doors or shutters A A, the whole being arranged substantially as and for the purpose set forth.

No. 20,469.—WILLIAM DAGGETT, of Troy, N. Y., assignor to A. B. DAVIS, of New Lebanon, N. Y., and W. H. TOLHURST, of said Troy. *Improved Drill for Gas Pipe.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, the combination of the light and heavy springs D C and adjustable follower E with the drill spindle B and stock or frame A, substantially as described, for the purpose of controlling and regulating the endwise movements of the drill-spindle, as specified.

And I also claim the clamp F, composed of the adjustable jaws *d d* and foot E, as described, when combined with the drill-stock for securing the latter to gas and water pipes, as set forth.

No. 20,728.—HENRY H. PACKER, of Boston, Mass.—*Improvement in Hand-Drill.*—Patent dated June 29, 1858.—The mechanism is caused to partially rotate at every forward stroke or vibration of the handle F, while, at every backward stroke, the pall *g* rides over the



ratchet-wheel *c*, leaving the mechanism stationary. By the peculiar construction of the drill with shells *A*<sup>1</sup> and *m*, the screw-barrel *C*, with its internal screw-thread, and the male screw *B* are protected from dust, &c.

*Claim.*—The combination of the cylindrical shells *A*<sup>1</sup> and *m* with the feed screw and screw-handle, substantially as and for the purpose specified.

No. 22,085.—FREDERICK MCNAIR, of Fultonham, Ohio.—*Improved Hand-Drill.*—Patent dated November 16, 1858.—The object of this invention is to obtain a portable hand-drill; one that may be readily manipulated and capable of being more generally adapted to various kinds of work than those previously used. It consists in attaching the frame of the drill, on or in which frame the sliding gate works, to a movable or adjustable bed which is hinged or jointed to a permanent or stationary bed, so that the drill may be used either in a vertical or horizontal position, as the nature of the work may require.

*Claim.*—The arrangement of the feed-screw *F* and sliding gate *D* and frame *C* in combination with the adjustable bed *B*, as and for the purposes shown and described.

No. 20,385.—HORACE WOODMAN, of Biddeford, Me.—*Improvement in Power and Hand-Drills.*—Patent dated May 25, 1858.—The nature of this invention consists in so constructing a drilling machine that the spindle can be placed on any desired angle and firmly held in place during the process of drilling, and also combining with the hand-drilling machine the pulley and platen, so that it can be used as a power drilling machine.

The inventor says: I *claim*, first, constructing an eye or box in the upper end of the post *A*, in combination with the hollow shaft *B* and spindle frame *D*, arranged substantially as described, whereby the spindle carried by the frame *D* may be set and operated at any required distance from an angle to the said post *A*, as set forth.

Second. The combined arrangement of the hollow shaft *B*, frame *D*, gears *F* *F*<sup>1</sup>, and spindles *C* and *G*, with their projecting ends, substantially as described, whereby the drill spindle may be driven either directly or through the medium of shaft *C* and bevel gears, as and for the purposes set forth.

Third. The arrangement of the movable platen or face-plate *U* with the sliding clamp-jaws *W*, collar *V*, and set-screw *X*, as specified.

No. 22,323.—ROBERT WILSON, of Milton, Penn.—*Improved Machine for Drilling Metals.*—Patent dated December 14, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the adjustable inclined plane, for the purpose of increasing and decreasing the feed of a hand or power-drilling machine for all kinds of metal.

Second. I claim the peculiar construction of the self-acting feed-escapement combined with the adjustable inclined plane, for the purpose of throwing off and on the feed to suit any depth of hole within



its entire descent, and then return again only to the height required within its ascent.

Third. I claim the adjustable bearing against which the lower end of the feed-hand rests, in combination with the involute or scroll and the feed hand which works upon it, for the purpose of producing a safety adjustable self-acting pressure escapement, all substantially in the manner and for the purpose set forth.

No. 22,446.—JOHN MURPHY, of Boston, Mass.—*Improved Blind Fastener*.—Patent dated December 28, 1858.—A A denote a pair of blinds, and B a window frame to which they are applied. Each blind bearing two metallic pintles *a b*, fastened to its outer edge, and extending from it. The head *c* of the lower pintle is furnished with a notch or recess *d* arranged in it, as shown in the engravings; the pintle, or that part of it extending below it being made to enter a round bearing or step *x*, formed in a metallic shank C, which projects and is driven into the window frame. The upper pintle works in and is supported by another stepped shank carrier C<sup>1</sup>, each of the said shanks being supported by a strut *e*.

The inventor says: I *claim* the arrangement of the spring catch on the pintle step shank, and with respect to the notched pintle, as described.

I also claim combining with the catch and its case, a movable projection or cover, applied so as to be capable of being moved on and off the pintle head, and to carry the thumb projection or stud of the catch, substantially in manner and for the purpose as specified.

No. 19,501.—WILLIAM H. FORBES, of New York, N. Y.—*Improvement in Sash Fastener*.—Patent dated March 2, 1858.—The device A is composed of two pieces of metal, these pieces are secured together by means of a hinge, or themselves forming the hinge. The lower portion of this device is made perfectly straight and plain, with holes in it for the purpose of securing it to the sash. The upper portion of the device is bent at a right angle at its upper extremity, and is rendered solid and firm by the triangular support X.

*Claim*.—The described device, marked A, secured to the sash, operated, constructed, and arranged, substantially for the purpose and in the manner set forth and described.

No. 20,238.—FREDERICK W. BROCKSIEPER and JOSEPH B. SARGENT, of New Britain, Conn., assignors to STEPHEN B. CRAM, of said New Britain.—*Improved Sash Fastener*.—Patent dated May 11, 1858.—In figure 1, C is the striking plate or catch, which is fastened to the top of the lower sash in front of the main sash A; B is the bar which turns on the pivot P, and is made with a hook at the outer end to the hook over the turned up edge of the striking plate C; D is a bolt which by its own weight or by the force of the spring E is forced down, and catches into the hole F; G is the front of the case.

*Claim*.—The bolt D as an attachment to a sash fastener, operating substantially in the manner as described.



No. 20,405.—OLIVER CHARTER, of Bristol, Conn.—*Improved Sash Fastener*.—Patent dated June 1, 1858.—The nature of this improvement consists in uniting the lift with the fastener in such a manner as to operate at or near the centre of the window.

The inventor says: It is well understood that lifts have been used for the purpose of raising windows, and also that spring fasteners have been used to hold and fasten the window sash; therefore such are not claimed.

But I *claim* the construction and arrangement of the lift A, spring B, thumb-piece F, lever D, and connexion rod E, operating substantially in the manner and for the purpose as described.

No. 20,526.—JOHN B. WITHERLE, of Upton, Mass.—*Improved Sash Fastener*—Patent dated June 8, 1858.—At the outer end of the lever *d* is a pall or catch *g*<sup>1</sup>, which is hinged to the lever, and is pressed outward or toward the rack *b* by a spring *h* extending from the lever. A retractor K is fastened to the edge of the sash.

*Claim*.—The combination and arrangement of the retractor K, the pall or catch *g*<sup>1</sup>, the spring *h*, and the lever *d*, applied in the window-sash, and in relation to the rack *b* of the sash-frame, as specified.

No. 20,759.—SOLOMON CARHART and WILLIAM MOORE, of Brooklyn, New York, assignors to themselves and JAMES H. McWILLIAMS of New York, N. Y.—*Improved Sash Fastener*.—Patent dated June 29, 1858.—The meeting rail of the lower sash is *a*, and *b* that of the upper sash; *c c* are the vertical central bars of the sash, *d* is one-half of a hinged drop screwed on to the upper side of the meeting rail *a*, and *e* is the drop united by the hinge to the part *d*; *f* is a plate screwed on to the bar *c* of the upper sash, beneath the lower edge of which the drop *e* is turned up, when the windows are to be fastened, so that the said drop *e* forms a strut between the two sashes to prevent either from being moved, and is very strong and durable in its character.

*Claim*.—The hinged drop *e* and plate *d* attached to the lower sash, in combination with the plate *f*, attached to the upper sash when the said drop *e* is kept beneath the edge of the plate *f* by means of the bolt Q, or its equivalent, substantially as and for the purposes specified.

No. 21,328 —RALPH J. FALCONER, of Washington, D. C.—*Improved Sash Fastener*.—Patent dated August 31, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Extending the cap portion *m*<sup>1</sup> of the catch *m* over and along the front edge of plate *n*, to form a catch *x*, opening flush with the edge of plate *n*, so that the window cannot be unfastened without having the point of the hook *a* withdrawn entirely clear from the meeting rail of the upper sash, and out of the way of the bars when the lower sash is raised.

No. 21,968.—EDWARD M. JUDD, of New Britain, Connecticut.—*Improved Sash Fastener*.—Patent dated November 2, 1858.—This invention relates to an improvement in that class of sash fastenings in



which a pintle is attached to a flat spring; the spring being secured to the end of the sash at one side, and the pintle fitting in holes in the styles of the frame or case. The object of the invention is to facilitate the application of the fastening to the sash, and render the same more efficient in its operation than usual.

*Claim.*—Attaching the rod D to the spring B, by means of the grooves  $a^1$  in said rod, the button  $a^{11}$  at its end, and the hole  $b$  and slot  $c$  in the spring B, substantially as and for the purpose set forth.

No. 22,105.—JOHN BESTWICK, Jr., of Dedham, Massachusetts.—*Improved Sash Fastener.*—Patent dated November 23, 1858.—In the box C of the lower sash B, and just below its eccentric D a slide bolt  $f$  is placed. This bolt has a spiral spring  $g$  bearing against it, the spring having a tendency to keep the bolt pressed against the side of the style  $d$ . On the upper surface of the bolt  $f$  there is a vertical projection  $h$ , the upper end of which intersects the path of the movement of the eccentric above it.

*Claim.*—A sash fastener, having an independent eccentric D and an independent bolt  $f$ , combined and arranged as shown and described.

No. 22,421.—PORTER A. GLADWIN, of Pawtucket, Mass.—*Improved Sash Fastener.*—Patent dated December 28, 1858.—The nature of this invention consists in constructing a spring catch or fastener secured to the meeting rail of the window sashes, so that by the pressure of the finger against the thumb-piece of the spring catch at the same time the sash is lifted, will free the sash, and when the sash is lowered down will be fastened by the action of the spring catch.

*Claim.*—The employment of the perforated plate D with the notched spring F for fastening window sash.

No. 22,187.—JOHN MCGERRAH, of Philadelphia, Pa.—*Improved Shutter Fastener.*—Patent dated November 30, 1858.—The claim and engraving explain the nature of this invention.

*Claim.*—The application of the brace to the under leaf of an ordinary hinge, and the nut, as a continuation of the axis of the segment on which revolves the upper leaf of the hinge, which is secured by the brace and the pin securing the embrace of the brace and nut.

No. 19,588.—ELIPHALET S. SCRIPTURE, of New Haven, Connecticut.—*Improvement in Window Fastener.*—Patent dated March 9, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that bolts with spiral grooves formed in them have been used before for various purposes; I therefore do not claim such.

But I *claim* the vibrating tracer B  $b$ , or in other words, small section of a screw nut, allowed to be vibratory in its operation, in combination with the elastic pillow block C, the regulating block D, the bolt E, and the catch stud G, with their flanges and inclined planes, all being secured in a two-part tube, and all being arranged substantially in the manner and for the purposes set forth.



No. 21,370.—IRVING ROOT, of Austin, Texas.—*Improved Window Fastener*.—Patent dated August 31, 1858.—*a* represents the plate to be screwed upon the lower side rail, *l* represents the fulcrum with a lever and a bolt attached to the fulcrum, which is a round cylinder to fit the holes or tubes in the upper rail, which holes are only bored half through the corresponding side rail of the upper sash ; *a* and *b* in perspective represent these tubes.

*Claim*.—The plate and thimbles, the groove, the spring plate and cylinder, constructed and operating in the manner specified.

No. 19,143.—JOSEPH U. HUSTON, of West Meriden, Connecticut.—*Improved File*.—Patent dated January 19, 1858.—The claim and engravings explain the nature of this invention.

The inventor says : I do not claim making a file of separate plate of steel, held together on a rod or bar by means of a screw, or its equivalent.

Nor do I claim making the cutter-plates of the file either round or with an angular periphery.

But I *claim* an improved file, or an improvement on a file so made, my improvement consisting in making each of the plates with a concavo-convex bend or angle, as described, and so that one plate shall extend into another, and be supported by it, and the whole be arranged to better advantage for being sharpened than is the case when the plates are plane or unbent pieces of metal.

No. 22,329.—GEORGE W. FOGG, of South Dedham, Massachusetts, assignor to Himself and D. S. FOGG, of said South Dedham, Massachusetts.—*Improved File Cutting Machine*.—Patent dated December 14, 1858.—The claim and engraving explain the nature of this invention.

The inventor says : I *claim*, first, controlling the opening of the regulating valve of an atmospheric trip hammer employed in a file cutting machine, for the purpose of regulating the blow thereof, and producing a uniform depth of cut from end to end of the file by means of a pattern whose form corresponds with or has a proper relation to the longitudinal profile of the file blank, applied and operating upon the said valve substantially as described.

Second, in combination with the arrangement of the cutter guide block *K*, at a greater inclination from a vertical plane than the hammer stem, and with the fitting of the cutter or cutter stock loosely in said guide block, I claim the employment of a clamping piece *Z*, or its equivalent, applied to the said guide relatively to a proper bearing on the opposite side of the cutter, and operated substantially as described, to produce the peculiar action of the cutter specified.

No. 20,286.—F M. MATTICE, of Buffalo, New York.—*Improvement in Tile Machines*.—Patent dated May 18, 1858.—The nature of this invention consists in such a construction of the machine and the arrangement of its several parts that it may be self operating, that is when it is properly supplied with moistened clay and put in motion that the clay may be wrought into mortar of the proper consistence



and formed into tile, delivered upon a handling board and ready to be set away to dry previous to being set in the kiln for burning.

*Claim.*—The cut-off valve O, the lever Q, cam S, plunger H, chest F, and cams I and K, when arranged and operating in conjunction, for the purpose of opening and closing the passage P, while filling the chest and discharging the contents of the same by the openings G G, in the manner and for the purpose specified.

No. 19,854.—J. NELSON JACOBS, of Worcester, Massachusetts.—*Improved Machine for Cutting Files.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the wedge I, at the top of the toggle by which the cutter is operated, combined with a foot piece  $r$ , with its shoe  $r^1$  resting upon the file blank or file, by means of mechanism substantially such as described, and with a loaded lever O, or its equivalent to operate as set forth, for the purpose of controlling the depth of cut throughout the whole length of the file.

Second, supporting the file blank or file upon a rolling bed fitted to a carriage with rollers interposed in the manner substantially as set forth, for the purpose of insuring an uniform depth of cut all across the file.

Third, the combination of the rocking shoe  $r^1$ , of the foot piece  $r$ , with the rolling bed E, substantially as and for the purpose set forth.

Fourth, the cam W, combined with the wedge I, foot piece  $r$ , and shoe  $r^1$ , by mechanism substantially as herein described, for the purpose of raising the cutter and shoe  $r^1$  of the foot piece  $r$  from the file or blank to prevent injury during its return.

No. 22,034.—E. K. ROOT, of Hartford, Connecticut.—*Improved Drop for Forging Metals.*—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the method of elevating the drop or hammer by means of a lifting strap having a vertical reciprocating motion, in combination with the retaining notches and pawls and the spring bolt, or their equivalents, substantially as described.

I also claim the method of disengaging the drop or hammer from the elevating strap by means of a wedge-shaped shoe on the strap, which strikes the end of the bolt, or its equivalents, and forces it clear of the strap, and into engagement with the retaining latch, substantially as specified.

I also claim the employment of an adjustable disengaging shoe, in combination with the series of retaining notches and pawls, essentially as described, whereby the hammer may be readily disengaged from the lifting straps, and retained at any desired height from the base block.

I also claim the sliding ratchet bar, in combination with the retaining notches in the posts, and retaining pawls on the hammer, when arranged and operating substantially as described, for the purposes set forth.

And finally, I claim, in combination with the bolt which forms the connexion with the elevating strap, and with the retaining latch



which holds the slide when disengaged from the elevating strap, or their equivalents, the employment of the angular lever, or its equivalent, by which the hammer may be readily disengaged from the elevating strap by the operator at any required point in the ascent of the hammer.

No. 19,930.—SOLOMON JOHNSON, of New York, N. Y.—*Improved Machine for Excavating and Washing Gold*.—Patent dated April 13, 1858.—The object of this invention is to obtain from the beds of streams the auriferous sands, &c, which contain gold, and to wash and separate the same by an incidental and instantaneous process.

Upon the frame *a* the chain-wheel *b*, with a suitable shaft, is placed; the wheel is grooved on its outer edge and otherwise adapted for receiving a chain and buckets in some respects like an ordinary chain pump. Over and upon this wheel an endless chain is made to pass constituted of an ordinary iron chain with, at suitable intervals, the buckets *c c c*.

*Claim*.—The chain and buckets in their peculiar form of construction, and method of operation in combination with the pump *d*, all substantially as set forth.

No. 19,337.—HENRY BARNARD, of Morristown, N. Y.—*Improved Ore Washer*.—Patent dated February 16, 1858.—This machine consists of a series of pans *C C* attached, one below another, to an upright shaft *B*, which has a rotary, vibratory, and longitudinal motion imparted to it by suitable motion. The pans gradually increase in size from the top to the bottom of the series, and the substances to be washed being introduced with a stream of water into the top one, the overflow of the water from one pan to another from the top to the bottom of the series, combined with the movement of the pans with the shaft, and the action of a series of stationary or moveable agitators, effect the washing operation in a very perfect manner.

*Claim*.—The series of pans *C C*, of sizes graduated as described, attached to the upright shaft *B* which receives a combined rotary, reciprocating and vibratory motion, by which varying degrees of agitation are given to the pans, substantially as and for the purpose described.

No. 21,820.—JOSIAH P. CLARK, of Portland, Maine.—*Improvement in Hammers*.—Patent dated October 19, 1858.—This invention consists in the novel means employed for holding the nail to be driven, so that, without being fixed or held by the hand of the carpenter or other person in the place where it is to be driven, the nail is by one blow of the hammer firmly fixed into the place where it is to be driven by means of an apparatus attached to the side of the hammer.

*Claim*.—The combination with an ordinary hammer of the metallic plate *d d d* with an opening *a* and slide *b*, constructed and operating substantially as set forth and described.

No. 21,691.—DAVID A. MORRIS, of Pittsburg, Pa.—*Improved Trip-Hammer and Anvil*.—Patent dated October 5, 1858.—The nature of



this invention consists in arranging one or more trip or tilt-hammers on a suitable foundation to strike either at the same time or alternately on iron held upon one anvil, which should be moveable on rollers beneath it on which the anvil can be moved with facility.

*Claim.*—The arrangement of a gang of trip or tilt-hammers, substantially as described in connexion with the moveable anvil, constructed in the manner and for the purpose specified.

No. 22,092.—BENJAMIN SHIVERICK, of Pittsburg, Pa.—*Improved Forge Hammer.*—Patent dated November 16, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the cam F, so constructed as to act on the collar K, opposite the spindle, or nearly opposite the spindle, during the whole time of its action in raising the hammer, except when the extreme end of the cam is passing out from under the collar to let the hammer drop, as described.

I claim a wedge, or its equivalent, so constructed and arranged as to be moved by the workman or attendant while the hammer is in motion, to graduate the action of the springs upon the hammer, to make it strike light or heavy blows, as desired.

No. 22,073.—ALFRED GREGORY, of Washington, D. C.—*Improvement in Hand-Hammers.*—Patent dated November 16, 1858.—A is a hollow handle made of metal, bamboo, or other material, among which are reeds of a large bore. The one end of this hollow handle has secured on it the hammer-head B. The other end, as far as grasped by the hand, may be covered so as to secure a good hold. Within this handle is a stick, one part *a* of which is of a light structure, and the other part *a'* of lead or other heavy material. This stick is made reversible on, in, or along the handle, and adjusted by one or more set screws *b*, or in any other way.

*Claim.*—The heft-regulating “hammer-shaft” or helve, substantially as specified, and operating to secure to the implement, of which it forms the handle, an enlarged and variable capacity to deal light or heavy blows, as required, essentially as set forth.

No. 21,823.—RUFUS DAWES, of Washington, District of Columbia.—*Improvement in Hammer-Heads.*—Patent dated October 19, 1858.—This invention consists in giving to the face of a hammer-head such an inclination to the longitudinal axis of the head that the workman shall be enabled to strike a succession of parallel blows when driving a nail, or at other work, without raising the whole arm at each blow.

*Claim.*—As a new article of manufacture, a hammer-head with its face inclined to the longitudinal axis of the head, in the manner set forth.

No. 19,997.—JAMES W. KERR, of Rochester, New York.—*Improvement in Operating Blacksmith's Hammer.*—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the various parts of my automatic blacksmith separately considered.

But I *claim* the combination and arrangement of the eccentric H



with the slotted reciprocating gate I and bellows K, whereby the required motions for successfully operating the bellows are obtained by the revolutions of the balance-wheel G, in the manner and for the purpose herein set forth.

I also claim the combined operation of the wheel G with cam or cams *o*, lever-bar M, hammer-lever *f*, hammer L, and spring *d*, whereby the power may be reciprocatingly employed between the actions of the bellows and trip-hammer, so that the power released from one is expended on the other, and *vice versa*, substantially in the manner and for the purpose described.

No. 21,981.—JOSEPH B. SARGENT, of New Britain, Connecticut.—*Improvement in Lifting-Handles*.—Patent dated November 2, 1858.—By casting the plate (fig. 1) in any malleable metal, and the handle (fig. 2) in any metal, and placing them together and bending the top of the plate downward around the handle, so that the projections A A will rest on the shoulders C C, the handle is secured to the plate; and on being used the projections D D will strike upon the projections A A, holding them firmly in the proper place, and, besides, preventing the handle from being raised above its proper position.

*Claim*.—A “lifting handle” with the plate cast in any metal that can be bent, having the socket formed in the manner described, and operating in connexion with the handle, as specified, the whole being an improved article of manufacture.

No. 20,052.—N. F. ENGLISH, of Hartland, Vermont.—*Improved Hatchet*—Patent dated April 27, 1858.—This invention consists in forming the claw on the upper part of the hatchet, adjoining the eye, so that the face of the hammer and claw will have nearly the same relative position as in an ordinary hammer, thereby rendering the implement very efficacious.

*Claim*.—Forming the claw *b* at the outer edge of the hatchet and over the eye or end of the handle C, substantially as and for the purpose set forth.

No. 19,374.—JOHN C. MASON, of New Hartford Center, Connecticut.—*Improved Hinge*.—Patent dated February 16, 1858.—The nature of this improvement will be understood by reference to the claim and engraving.

*Claim*.—The construction of a loose joint butt hinge, which becomes a tight joint as soon as turned from the position in which it is put together in the manner set forth, or in any other manner substantially the same, whereby I am enabled, by putting hinges on each edge of a door, to open it right or left, or by reversing the butt to make a solid hinge, as described.

No. 21,124.—W. H. ELLIOT, of Plattsburgh, New York.—*Improvement in Hinges*.—Patent dated August 10, 1858.—The nature of this invention consists in combining with a table hinge *b*, a portion of the joint of rule joint *d*, tables.

*Claim*.—Combining with the table hinge a portion of the rule joint as specified.



No. 21,735.—MATHIAS BETTINGER and AUGUST BOOS, of Cincinnati, Ohio.—*Improved Hinge*.—Patent dated October 12, 1858.—This invention relates to that class of hinges in which a door or shutter is held open or closed by gravity, by means of the upper section of the hinge settling down on to inclined surfaces on the lower, and consists in combining with the above arrangement a device by which the door or shutter is prevented from being unshipped by wind or otherwise, while swinging to and fro.

*Claim*.—The described arrangement and combination of the lugs F F, and horns C C, for the purposes set forth.

No. 21,925.—R HART, of Washington county, Ohio, assignor to THEODORE F. HALL, of Marietta, Ohio.—*Improvement in Hinges*.—Patent dated October 26, 1858.—The hinge is constructed of some suitable metal. H H<sup>1</sup> show the wings, or portion of the lower and upper hinges to be attached to the post of the gate. T T represent the wings, or portions of the lower and upper hinges to be attached to the gate.

The inventor says: I *claim* the employment of the shifting yoke *y*, and in combination therewith of the spring *s*, constructed, arranged, and operating substantially in the manner and for the purpose set forth.

I claim also the combination of the hook or part K, having a salient angle  $\alpha$ , constructed and arranged substantially as set forth, with the inclined plane closing and opening gates and doors.

No. 19,076.—JOHN B. CORNELL, of New York, N. Y.—*Improved Hinge Eye for Shutters*.—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that hinge pivots have been cast into the winged portions of shutter hinges; and I am also aware that the said pivots frequently work loose and drop out of their places, when it is very difficult, if not impossible, to replace them.

I do not claim to be the inventor of the skeleton wing which forms a portion of my improved eye. Nor do I abstractly claim the chill-hardening of any portion of said hinge eye.

But I *claim* as a new manufacture the described improved hinge-eye, the said hinge eye consisting of a chill-hardened eye-hole projection, cast in one piece, with a wing of suitable shape for its being built into a wall, as set forth.

No. 21,347.—JOHN LOUDON and HANS IVERSEN, of New York, N. Y.—*Improvement in Hinges for Window Blinds*.—Patent dated August 31, 1858.—The nature of this invention consists in the combination of a latch lever moving with the blind hinge, with a notched plate on the fixed half of the hinge, whereby the blind can be retained in a partially or entirely open or shut position, and also in the manner of fitting these parts, so that they can be applied to blinds already in use.

The inventors say: We do not claim a hinge formed with a latch to retain the blind.

But we *claim* the combination of the lever *h* on one part of the



hinge with the plate *f* on the other part, for the purposes and as specified.

We also claim the plates *f* and *g* connected with the respective parts of the hinge by the countersinks, and holding said hinge in the desired position by the cam lever *h* and notches in the plate *f*, as set forth.

No. 22,214.—THOMAS E. WILLIAMS, of Washington, D. C.—*Improved Hinge for Window Blinds*.—Patent dated November 30, 1858.—The nature of this invention consists in arranging a catch-bar upon the face of the hinge in such manner that when the blind (hinge) is thrown open or back, it will be retained firmly in that position, and by applying the finger to the handle of the catch-bar it disengages itself, so that the blind or hinge can be shut or closed, and the bar remain in the same position without strain, locking the wings of the hinge together, so that to break the connexion the plates of the hinge would have to be broken, or the screws of the hinge drawn.

*Claim*.—The catch-bar *i* and catch *m*, in combination with the cavities *c*, *d* and *f*, and hinge, substantially in the manner and for the purpose set forth and described.

No. 21,496.—A. T. HEDRICK, of Clyde, N. Y.—*Improved Gate Hinge*.—Patent dated September 14, 1858.—This invention consists in the employment of an angle plate having an oblong slot cut vertically through its horizontal angle, in combination with a plate which has the pintle or axle pin of the hinge on its lower edge, and a shifting projection on each of its side edges. By this combination a hinge is provided which will cost but little more than the ordinary hook and eye hinge, and will be capable, when used in connexion with an ordinary hook and eye or other hinge, of allowing the gate to open both ways, or inward and outward, and will cause the gate to close automatically, or not allowed to remain stationary in any other but a closed condition, unless held so by a cord or hook.

*Claim*.—The employment of an angle plate having an oblong slot cut vertically through its horizontal angle, in combination with a plate which has the pintle or axial pin of the hinge on its lower edge, and a shifting projection on each of its side edges, substantially as and for the purposes set forth.

No. 21,939.—C. E. BURNHAM, of Binghamton, N. Y.—*Improved Gate Hinge*.—Patent dated November 2, 1858.—This invention consists in having pintles fitted in sockets and attached to each end of the gate, and having plates with double inclined planes and steps attached secured to the gate posts, the pintles being acted upon by springs connected to levers, and the whole arranged so that the gate may be made to swing at either end, the pintles serving in the capacity of both hinges and catches, either as may be desired.

*Claim*.—The pintles *e*, placed within the sockets *a* *a*<sup>1</sup> that are attached to the ends of the gate *A*, in connexion with inclined planes *d* and steps *e*<sup>1</sup> attached to the posts *B* *B*<sup>1</sup>, the spring *d* acting or bearing on the pintles *e* and the levers *j* *j*<sup>1</sup> or their equivalents, connected to



the pintles through the medium of the rods *h* and arms *g*, the whole being arranged to operate substantially as shown and described.

No. 19,526.—ELBRIDGE WHEELER, of Marlborough, Mass.—*Improvement in Horse Shoes*.—Patent dated March 2, 1858.—The blank is drawn down to the proper width and to a thickness equal to the thickness of the shoe and the height of the calk, the proper level being given to it to form a sharp calk. It is then passed through the machine, where certain indentations are made in the rolls to correspond to the toe-calk C and the heel-calks D, when the portion of the blank between these parts is rolled down E to the thickness required for the shoe, and the projection C and D are left forming the calk.

*Claim*.—The described horse shoe, the calks and shoe being of one piece of metal, formed by drawing down the shoe, and without welding or turning up.

No. 20,713.—WILLIAM E. HUBBARD, of Randolph, N. Y.—*Improvement in Horse Shoes*.—Patent dated June 29, 1858.—The hook B has a shank of sufficient length to pass through the thick heel part of the shoe A, and receive a nut *c* on the end, and with sufficient length of screw to admit of the necessary expansion of the hoof.

*Claim*.—The combination of the hooks B—the screw nut *c* being condensed as a part thereof—with the stiff unyielding shoe A, for the purposes as set forth.

No. 21,571.—JOHN MADDOCK, of Bloomington, Illinois.—*Improved Horse Shoe*.—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—A nailless horse shoe, provided with lugs *a*, or their equivalents, formed on the upper side of the sole A, when used in connexion with corresponding projections *b*, formed on the inner side of the upper flange B, the former being made to fit cavities formed in the horse's hoof, and the latter into grooves *c*, formed for their reception in the sole A; the whole being constructed and secured together in the manner and for the purposes substantially as set forth.

No. 19,528.—HARRY A. WILLS, of Keeseville, N. Y.—*Improved Horse-Shoe Machine*.—Patent dated March 2, 1858.—Power is applied to the rollers B C. A bar is first placed between the shears M N, after having been heated. The blank is first cut off from the bars by the shears, the pin *h* actuating the bar L, to which the cutter M is attached. As soon as the blank is cut off, the lever O is moved by the cam on the roller C, and the bar P is moved towards the rollers, carrying the blank forwards to the rollers, and retaining it until it is caught by the front end of the mould E; the blank, as the roller B rotates the rollers *c* on the bars H, serving as supports, and keeping the blank to the mould. Just previous to the entering of the mould E and blank F into the die G, the bar *j* is moved forward by the bar Q, which is operated by the tappet or pin *n* on the roller C, and the bar *j* shoves the front end of the blank F a little off from the mould



E, so as to allow the blank to be expanded laterally while being compressed by the die G.

The inventor says: The rollers B C, mould E, guide rollers *c*, and segment T, have been previously used, and were employed in the machine of Young & Titus, previously alluded to; I therefore do not claim such parts.

But I *claim*, first, the peculiar arrangement of the shears M N in relation to the upper roller B *h* and the feeding bar P, so that the cutter shall be brought into action, and the cutting off of the blank effected in the revolution of the upper roller B by means of the projection *h* on the same, and the blank, when cut off, left in a position to be certainly fed between the rollers, substantially as set forth.

I further claim, in combination with the guide rollers *c*, attached to the bars H H, the auxiliary spring guides *e*, attached to the bars J J, and arranged to operate conjointly with the guide rollers *c*, as shown and described.

I also claim loosening or shoving back the blank F on the mould E, just previous to its entering the female die G, by means of the vibrating or loosening bar *j*, for the purpose set forth.

No. 19,957.—GEORGE STILES and STRICKLAND KNEASS, of Philadelphia, Pa.—*Improved Horse-Shoe Machine*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We are aware that an arrangement of a revolving “former” has been heretofore patented in combination with two stationary bending levers; we do not therefore claim any such arrangement.

But we *claim*, 1st. The employment of the stationary former *e e<sup>1</sup> e<sup>11</sup>*, in connexion with the reciprocating levers K K<sup>1</sup> K<sup>11</sup> K<sup>111</sup>, and with the fixed cam S, arranged and operating as set forth.

2d. The employment of the moving swager *d d<sup>1</sup> d<sup>11</sup>* and fixed swager *f f<sup>1</sup> f<sup>11</sup>* for forming and swaging the shoe while on the former *e e<sup>1</sup> e<sup>11</sup>*, and enclosed at the side in a hollow moving die box H H<sup>1</sup>, arranged and operating as set forth.

3d. The employment of the hollow box plunger H H<sup>1</sup>, in connexion with the former C C<sup>1</sup>, for creasing and punching the shoe at the same time that the outer edge is finished by the hollow die box; the whole arranged and operating substantially as above described.

No. 20,023.—ELWIN SHAW, of Providence, R. I., and CALVIN CARPENTER, of Pawtucket, Mass., assignors to Themselves and G. B. JUSTRAM, of said Providence.—*Improved Horse-Shoe Machine*.—Patent dated April 20, 1858.—By varying the position of the patterns I, with reference to a vertical plane passing longitudinally through the centre of mould K, the amount of pressure given to the edge of the shoe may be regulated and the thickness and width of the heel be varied.

*Claim*.—Varying the point at which the pressure for narrowing and thickening the heel commences, by moving the mould K in or out in the manner substantially as described.



No. 20,646.—WILLIAM W. LEWIS, of Cincinnati, Ohio.—*Improved Horse-Shoe Machine*.—Patent dated June 22, 1858.—A full description of this machine would require too much space to be given here. To the frame A are secured two brackets A<sup>1</sup> A<sup>1</sup>, which contain the bearings for a horizontal shaft D, which carries a cam D<sup>1</sup> for operating through a toggle E E on the die e, which forms the top of the shoe; also two cams D<sup>2</sup> D<sup>2</sup> operating through levers F F, rods F<sup>1</sup> F<sup>1</sup>, and wedges F<sup>2</sup> F<sup>2</sup> on the two dies b b, which form the sides of the shoe, and a cam D<sup>3</sup> which operates on the feed rollers f f, which feed the bars of iron.

The inventor says: I *claim*, first, the combination with the stationary table B of the mandrel C P P, the stationary front die a, sliding side dies b b, and top die e, all applied to operate together, substantially as described.

Second. Operating the dies b b, which form the sides of the shoe, by means of the upright sliding rods F<sup>1</sup> F<sup>1</sup> with their wedge-shaped ends, the levers F F, and the cams D<sup>1</sup> D<sup>1</sup> on the shaft D, the whole combined and applied as described.

No. 21,779.—T. H. RUSSELL, of Northfield, Vt., and AMOS MORRILL, of Strafford, Vt.—*Improved Horse-Shoe Machine*.—Patent dated October 12, 1858.—This invention consists in the use of two lateral forming rollers, a vertical pressure roller, and an adjustable or movable former and die; the whole being arranged and operated whereby the desired work, namely, the making of horse shoes, is performed at one operation, the shoes being made directly from the bar without any manipulation on the part of the operator or attendant, except the feeding of the bar to the machine.

The inventors say: We *claim* the movable former K, lateral forming rollers Q Q, arranged with the guide rollers O R and grooves l l n n, the vertical pressure roller I, and the female die L, when combined and arranged for joint operation, substantially as and for the purpose set forth.

We further claim the particular arrangement of the roller bar G, to wit, having said bar provided with the rollers i<sup>1</sup> i<sup>1</sup>, which bear against blocks j j, attached to the uprights H H, and having the pin h pass through an oblong slot g, in the upper part of the bar, substantially as and for the purpose set forth.

No. 20,079.—JOHN McCARTY, of Philadelphia, Pa.—*Improvement in Machines for making Horse Shoes*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: Without claiming separately the various parts described, I *claim*, first, the combination of the mandrel with the rollers 8 8, when the said mandrel is of the same form as that presented by the inner edge of the shoe to be manufactured, when it is so operated as to convey the bent bar to the dies, there retain it while it is submitted to the action of said dies, and subsequently withdraw the formed shoe from the same, and when the rollers are caused to approach each other as the mandrel advances.

Second. I do not claim exclusively the employment of opening, closing, and reciprocating dies.



But I claim the jaws Z and Z<sup>1</sup>, the reciprocating mandrel X with its projection underneath, the lower die P with its recess for receiving the projection of the mandrel, and with its projecting lip *p* and the upper die *k*, when the said dies, mandrel, and jaws are arranged to close and lap over each other, in the manner set forth, and when they are otherwise arranged and actuated substantially as and for the purpose specified.

Third. Piercing the requisite nail holes in the shoes by means of the punches *q* when the same are attached to the plates R and R<sup>1</sup>, when the latter are hinged to the guide blocks T and T<sup>1</sup>, when the upward movement of the latter is regulated by the adjustable wedges V, and when the whole is arranged and operated substantially in the manner set forth and for the purpose specified.

No. 20,441.—CHARLES H. PERKINS, of Putnam, Conn.—*Improved Machine for making Horse-shoes*.—Patent dated June 1, 1858.—This invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the combination and arrangement of the hammer K and the creaser L with one rotary tripping shaft I, so as to be operated thereby substantially in the manner and for the purpose specified.

Second. I also claim the mode of constructing and operating the former B—that is, making said former with the vertical edge *g* and beveled top surface *x*, and causing the said former to take two separate positions with respect to the benders and hammer, in manner and for the purpose set forth.

Third. I also claim constructing the bed or anvil A, with the projection or die *w*, for hollowing the shoe or making it concave in rear of the toe, as specified.

Fourth. I also claim the combination of the straight toe die *b* with the benders C C and the former B.

Fifth. I also claim the combination of a set of notches, or their equivalent, with the rear end or toe or other proper part of the former, and for the purpose of maintaining the shoe blank in its proper place or position with respect to the former during the process of bending the shoe thereon.

Sixth. I also claim in combination with mechanism for giving to the hammer shaft its tilting or vertical motions, mechanism for rotating the shaft at the proper times, in order to bring the hammer and creaser to operate alternately on the shoe, as specified.

Seventh. And in combination with the mechanism for tilting and turning the hammer and creaser shaft, I claim the mechanism for arresting the operations of the tilting mechanism, and for preventing the fall of the hammer shaft long enough to allow of a semi-rotation of the hammer shaft, and the withdrawal of the made shoe from its place about the former, and the substitution of a shoe blank therefor.

No. 19,836.—GEORGE JAMES FARMER, of Birmingham, England.—*Improvement in hardening Iron and Steel*.—Patent dated April 6, 1858.—The claim explains the nature of this invention.

The inventor says: I wish it to be understood that I do not confine



myself to these precise details, nor to the exact proportions of the several chemical compounds stated, as I have merely specified those details and proportions which I have hitherto found the best suited to effect the intended purpose, and they may probably admit of some slight variation when operating upon different qualities of metal.

I *claim* the hardening of articles formed of iron or steel, by plunging them into a solution of prussiate of potash, sal ammoniac, and saltpetre, after they have been heated red-hot and rolled in a powdered mixture of the same materials, as set forth.

No. 21,863.—GEORGE S. BOSWORTH, of Troy, N. Y., assignor to ANSON ATWOOD, of said Troy.—*Improvement in Manufacturing Car Wheels of Cast-Iron*.—Patent dated October 19, 1858.—This improvement is for the purpose of more perfectly chilling or hardening the wheel, making at the same time a more complete casting, without the flaws of “cold sheets,” naves, or other defects, making also a more smooth, even surface and perfect form, undistorted by unequal shrinkage, than has been done by other processes.

*Claim*.—The employment of highly heated “chills” when combined with sand moulds, in the manner and for the purposes set forth.

No. 22,476.—MOSES WRANGLE, of New York, N. Y., assignor to HUNTER, KELLER & Co., of said New York.—*Improved Cast-Iron Mercury Bottle*.—Patent dated December 28, 1858.—In this invention the inventor says: I form the pattern, fig. 2, conforming to the shape of the article, and parted, as usual, in the middle longitudinally. I then cut the pattern off at right angles at *a*, the lower portion *b* that forms the concave being connected with the upper part by the dovetail, or other convenient fastening. In the same way I form the cone box, fig. 2, by cutting off the lower section *c*, so that when the mould or cone is formed the upper part can be lifted off, and then the lower part, forming the concave bottom, can be removed laterally and the concavity thus secured.

*Claim*.—Moulding iron mercury bottles with concave bottoms by means of the patterns, substantially as described.

No. 20,009.—ADAM V. VAN HOEVENBERGH, of Southside, N. Y.—*Improvement in Hollow Cast-Iron Cooking Utensils*.—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—As a new and improved article of manufacture, to wit, hollow cast-iron cooking utensils, kettles, griddles, &c., having the interior surface which comes in contact with the cooking material polished by any of the usual processes for polishing metals.

No. 21,844.—JAMES NOBLE, of Monongahela Borough, Pennsylvania.—*Improved Rolls for Planishing Iron*.—Patent dated October 19, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—The use of rolls having a straight groove, depression, or recess, extending parallel to its axis for the entire length of the roll,



or at least for the length of the other roll of the pair into which the other roll is placed before they are pressed together for the purpose of securing a degree of pressure adequate to the planishing of single sheets of metal, in the manner described.

No. 19,799.—WEBSTER A. STEPHENS and RICHARD JENKINS, of Covington, Kentucky.—*Improvement in the Manufacture of Tubular Wrought Iron Shafts*.—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The manufacture of wrought iron bars for the tubular axles, shafting, or other purposes, by rolling from a solid pile in a system of grooves, substantially like that described, by which the pile is first flattened, then grooved longitudinally, and afterwards has the sides of its groove closed together and welded, as set forth.

No. 21,772.—DAVID A. MORRIS, of Pittsburg, Pennsylvania.—*Improvement in the Manufacture of Sheet-Iron*.—Patent dated October 12, 1858.—By this invention the process of manufacturing sheet-iron, to possess most of the qualifications of “polished Russia sheet-iron,” consists in procuring well carburetted pig-iron, charcoal cool-blast, having silicium, aluminum, and manganese only alloyed with the iron, being free from sulphur, arsenic, phosphorus, copper, &c., which are difficult to extract and always injurious to the iron. A flux or compound of reagents, so constituted and proportioned as to take up the excess of aluminum, silicium, and manganese, only permitting a minimum of each to remain. This flux may be used either in the refinery or puddling furnace. After this the usual process of reducing iron to thin plates is resorted to.

*Claim*.—The manufacturing of enameled anti-corrosive sheet-iron, by the process specified.

No. 21,817.—JOSEPHUS CHANDLER, of Attica, Ohio.—*Improvement in the Manufacture of Sheet-Iron*.—Patent dated October 19, 1858.—The nature of this invention consists in treating iron, during the manufacturing process, with certain mineral matter, either alone or in addition to that already used, for the purpose of chemically regulating or altering the character of the surface-scale on the iron, and also facilitating its manufacture; which mineral matter acts upon the iron during the processes of heating and rolling the iron into plates, sheets, &c.

*Claim*.—Coating or covering bars, plates, or sheets of iron, or either of them, before, at, or during the manufacturing process of heating and rolling, with clay, iron-ore, or other mineral matter, salts, and also with the chlorides or other compounds of zinc, tin, &c., or of their mixtures with other mineral matter, for the purpose substantially as set forth.

No. 21,692.—DAVID A. MORRIS, of Pittsburg, Pennsylvania.—*Improvement in Rolls for Making Sheet-Iron*.—Patent dated October 5, 1858.—The inventor says: In making this roll, I first have the rolls, of chilled iron, turned off and finished very smoothly; then I



dot or spot them all over with melted wax; the spots of wax may be large or small, and can be arranged to suit the fancy of the maker. After the roll has been properly waxed, I immerse it in diluted sulphuric acid, (about one part acid and twelve or fourteen parts of water,) where it should remain about eight or ten hours, or long enough to etch or eat in the depth required; then I place the roll in a lathe and finish it off with emery and oil, which takes off the sharp edges and gives the projections a rounded form.

*Claim.*—The employment of mottled chilled iron rolls for rolling sheet-iron, when constructed substantially as described.

No. 21,616.—JOHN MOULSON, of Philadelphia, Pa.—*Improved Key-hole Stop*.—Patent dated September 28, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—The construction of a key-hole stop consisting of two pieces of metal, one to slide into the other, which, when introduced into a key-hole, first the female then the male piece in conjunction with a lug on one piece and a padlock or its equivalent through both pieces, all combined as described, or their equivalents, will fill the key hole and effectually prevent depredations on locks by preventing the introduction of any unwelcome key or other instrument therein.

No. 20,280.—RUFUS K. LEE, of Brooklyn, N. Y.—*Improved Safety Drop for Keys*.—Patent dated May 18, 1858.—The nature of this invention consists in the use of a notch drop *b*, and a key having a flattened shank or groove over which said drop passes, in combination with a peculiar eccentric or cam piece *f*, to prevent said drop from being moved from the outside by a piece of wire inserted through the key hole, and also a revolving disk 6 attached to the inner side of the drop that will revolve by any pick or similar instrument inserted through the key hole, and prevent strain being applied to move said drop.

*Claim.*—The revolving disk 6 on the rear side of the notched drop *b*, for the purposes and as specified.

I also claim the employment of the notched drop *b*, the eccentric *f*, and disk 6, arranged, constructed, and operating as specified.

No. 19,017.—ORESTES CLEVELAND, of New York, N. Y.—*Improved Bolster for Plated Table Knives*.—Patent dated January 5, 1858.—The bolster D is made separate from the knife blade, and out of some solid metal which is not liable to change its appearance or corrode. The form of the bolster D is represented in the engravings, it being flat and having a hole in the centre. The bolster is passed over the shank C fitted snugly against the shoulder A of the blade and then confined to the handle, which is passed over the shank and its end made to bear up closely against the bolster, as represented.

*Claim.*—A table knife made substantially as described.

No. 19,641.—LYMAN JENNINGS, of Ewing, Mass.—*Improved Holder for Planing Knives while grinding*.—Patent dated March 16, 1858.—There is a clamp *h h* secured in a frame A, provided with rollers E E,



one or more, and with handles C C, so that the cutter or tool to be ground may be firmly secured in the clamp, and by applying the frame to the stone, the tools are ground in a perfect manner.

*Claim.*—The frame A, provided with the rollers E E, one or more, and the plate C, clamps *h h*, and adjusting screws *m m*, or their equivalents, for securing and adjusting the knife or cutter D, in the frame, substantially as and for the purpose set forth.

No. 19,614.—THOMAS C. BALL, of Keene, New Hampshire, assignor to A. S. DAVIS and H. C. HENDERSON, of said Keene.—*Improved Latch for Doors.*—Patent dated March 16, 1858.—The nature of this invention consists in a certain arrangement of the handle D and latch A, by which sliding doors may be closed and latched, or *vice versa*, by a single effort of the hand exerted upon the handle, and by which, with the aid of a padlock, the latch may be firmly in place and the door securely fastened.

*Claim.*—The combination of the latch A, the handle D, the lever E, the spring B, the lock seat *f*, or their equivalents, for the purposes stated and fully described.

No. 19,786.—JOHN L. MASON, of New York, New York.—*Improved Lathe Chuck.*—Patent dated March 30, 1858.—The screw part is made separate from the flange, with a short stem at its rear; the screw is either screwed together by a screw on the stem of the screw part and a corresponding screw in the flange part, or else the flange part is heated and the two are shrunk together, the flange coming so far on that the thread and groove of the screw shall gradually terminate at the flange.

*Claim.*—The chuck described for spinning screw caps, &c., having a flange or rounded thread and a rounded groove, the groove and thread vanishing gradually at the flange, substantially as described.

No. 19,533.—JOHN M. PERKINS, of New York, New York, assignor to ROBERT M. PATRICK, of said New York.—*Improvement in Locks.*—Patent dated March 2, 1858.—The object of this improvement is to give increased security by a more simple construction, to increase the durability, and to reduce the liability to get out of order. The locking is effected by the yoke *o*, from one end of which a pin passes out through the front and near the key hole, and it is by pulling this outward that the yoke will draw all the tumblers together so that each one will be directly over the other, and in which position the slots *e* no longer coincide, consequently the bolt *f* is kept from entering.

The inventor says: I *claim*, in combination with a set of tumblers, arranged and operating in the manner described, a set of stationary bars at one end, and a set of washers at the other end of and interposed between said tumblers, for the purposes specified.

I also claim the yoke embracing the whole set of tumblers, in combination with a pin, or its equivalent, projecting out and through the case, for the purpose of enabling the tumblers to be shoved together so as to cover each other, whereby the slots of the tumblers are caused not to coincide, thus preventing the bolt from being withdrawn.



No. 19,564.—ABRAHAM HOAGLAND, of Jersey City, New Jersey.—*Improved Lock*.—Patent dated March 9, 1858.—A in the engravings is the bolt; B the quadrant tumbler; C part of the key hole case; D the ward; E the stem; F india rubber spring; G shaft of the knob; H cam of the lock; I springs to hold the quadrant tumbler firm; J small stems to hold the quadrant tumblers when thrown back in unlocking; K quadrant tumblers in separate parts used when it is required to complicate the lock; L the key. The act of locking is performed by turning the quadrant tumblers to the position in fig. 1, where they are held by the steel spring I.

The inventor says: I do not claim as original any one of the parts of this lock. But I *claim* the combination of the several parts to form a catch lock, with a separate key hole on each side, having the bolt A operated by the segments B and the spring F, constructed and arranged substantially as described.

No. 19,628.—WILLIAM DENNEY, of Philadelphia, Pennsylvania.—*Improved Lock*—Patent dated March 16, 1858.—The lever I works on a pin N, and bears on the inside of front plate A of the casing. Its longest arm is provided with a grooved extension  $l$ , which plays in peculiarly shaped openings in the tumblers  $h h^1 h^2 h^3$ , and which, while at rest in the position shown at fig. 1, prevents the taking of measurements for the proper length of square projections  $m m$  on the key. The V-shaped end of the spring R bears against an angular face  $r$  on the detector P, and serves to hold it in its place.

The inventor says: I wish it to be distinctly understood that I do not desire to confine myself to the shape of the tumblers in every minutia, nor to any particular number of the same.

I also do not claim the use of the detector P exclusively, as similar contrivances have been made use of before.

But I *claim*, first, the employment of the lever I, in combination with the tumblers, the whole being constructed and operating substantially as set forth.

Second, the combination of the detector P with one of the tumblers in the manner shown.

Third, the described employment of the supplementary key for the purpose of releasing the bolt plate from the detector.

No. 19,879.—ERASMUS M. SHAW, of Baltimore, Maryland.—*Improved Lock*.—Patent dated April 6, 1858.—In this improved lock the cover or box plate is moved upwards or downwards by the key when the key is moved. The bolts cannot be separated until the plate  $r$  is moved downward so as to cover the narrow portion of the bolts, than it does when it is up as far as it can be moved, for in that position it fits close to the bolts and prevents their separation. B is the hole in the plate A for the stem S to pass through.

*Claim*.—The plate  $r$ , spring plates  $p p$ , pins  $x$ , and hollow stem  $q$ , combined as described.

No. 20,027.—LUDWIG BAIER, of Cincinnati, Ohio.—*Improved Lock*.—Patent dated April 27, 1858.—The nature of this improvement con-



sists in the combined arrangement of the bolt and tumblers of the lock, together with the means employed for operating the tumblers when attached to the bolt, which arrangement of the parts dispenses with the use of springs, levers, and gearing which are more or less used in all locks for bank vaults and similar purposes.

*Claim.*—The combined arrangement of the tumblers *c c c c c c* and *d*, guard plate *J*, T-piece *i*, with the bolt *B*, all for the purposes mentioned and represented in the specification.

No. 20,476.—JOSEPH A. BRADEN, of La Grange, Georgia.—*Improved Lock*.—Patent dated June 8, 1858.—This invention consists in the employment of a series of slides *G*, provided with teeth or racks *h h<sup>1</sup>*, and arranged relatively with a bifurcated bolt *B B*, into the parts of which the ends of the slides work, these parts being used in connexion with a series of bits *H* attached to separate arbors *j k l m*, placed one within the other, and operated by means of keys or knobs.

*Claim.*—The slides *G* placed relatively with the bars *B B*, as shown, and provided with the stationary teeth *h* and yielding teeth *h<sup>1</sup>*, in combination with the bits *H*, placed on separate arbors, and arranged to operate as and for the purpose set forth.

No. 20,850.—JOHN PHILIP LIPPS, of Newark, N. J., assignor to GEORGE D. BALDWIN, of New York, N. Y.—*Improved Lock*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The independent bit *M*, constructed as shown and held anteriorly or above the bolt by the horizontal spring *z*, (and independent of the spiral springs) thereby securing against the introduction of any instrument to pick the lock.

No. 21,193.—FAYETTE GOULD, of Huntington, N. Y.—*Improved Lock*.—Patent dated August 17, 1858.—This invention consists in the use of two sets of sliding tumblers in connexion with a rotating plate or boss provided with a key chamber and slide whereby the desired object is attained by a simple arrangement of means.

The inventor says: I am aware that sliding slotted tumblers have been used and arranged in various ways in locks, and also used in connexion with guards and other devices for rendering locks unpickable or burglar proof. I therefore do not claim, broadly and separately, series of sliding tumblers provided with notches or recesses at varying points.

But I *claim*, first, the rotating plate or boss *C*, placed within the annular ledge *a*, and provided with a key chamber or recess *b*, and yielding or elastic pin *E*, in combination with the sliding tumblers *k*, notched or recessed as shown, the above parts being arranged substantially as and for the purpose set forth.

Second. The rotating plate or boss *C*, arranged with the sliding plate *D*, and tumblers *k k<sup>1</sup>*, in combination with the check or guard tumblers *n<sup>1</sup>*, substantially as and for the purpose specified.

No. 21,293.—HJALMAR WYNBLAD, of West Hoboken, N. J.—*Improved Lock*.—Patent dated August 24, 1858.—The nature of this



invention comprises that kind of plate locks which have recesses in the periphery of the revolving wheel plates to receive the end of a pendular lever, and consisting principally in an improvement on the shape and position of the plates, and in simplifying the action of the same by making them to operate upon the bolt direct, dispensing with the lever, &c.

*Claim.*—The arrangement of tumblers *c d e*, provided with cogs *g* and notches *i*, in connexion with a projection on the bolt, and operating in the manner and for the purpose set forth.

No. 21,346.—JOHN P. LORD, of Manchester, N. H.—*Improvement in Locks.*—Patent dated August 31, 1858.—The nature of this invention consists in the various ways of adjusting the movable driving pins *h*, so that the location of the rotary wards *G* may be known only to the person adjusting them, the movable driving pins being fitted to any desirable number of holes, or drills, tapped in each and all the wards *G* at particular distances from each other, thus allowing a great number of changes or variations to be made.

The inventor says: I *claim*, first, the application of the guides *a a*, or their equivalents; also the groove *B* and spring *C*, or their equivalent, substantially as specified.

Second. The application of the tongue *D* and guards *E E E E E*, or their equivalent, combined with the bolt *n*, substantially as specified.

Third. The application of the slotted stud, substantially as specified.

Fourth. The application of the slotted rotary wards *G G G G G*, or their equivalent, in combination with the driving pins *h h h h h h h h h h h h* and indicator *I*, or their equivalent, constructed substantially as specified.

Fifth. The application of the driving ward gear *J* and driving bolt gear *O*, or their equivalent, constructed substantially as specified.

Sixth. The application of the key *L*, in combination with the ward and bolt gears, substantially as specified.

No. 21,543.—CHRISTIAN ACKERMAN, of Newark, N. Y.—*Improved Lock.*—Patent dated September 21, 1858.—The nature of this invention consists in such a construction and arrangement of parts as to give a peculiar rolling motion to the bolt, and so to secure the same that it cannot be driven back without the entire destruction of the lock.

*Claim.*—The use of the fall *b* and lever *c*, in their combination with the eccentric moving bolt *a*, when constructed and operated as herein set forth.

No. 21,636.—THOMAS L. PYE, of New York, N. Y.—*Improvement in Locks.*—Patent dated September 28, 1858.—This invention consists in the use of a series of sliding slotted tumblers, arranged with a shackle and spring bar, whereby a very simple and efficient lock is obtained, and one that cannot be opened without the proper key. The invention is more especially designed for padlocks, but still is applicable to other forms of locks which have a bolt that enters the casing.



*Claim.*—The tumblers C, slotted as shown, provided with projections *d*, and used in connexion with a shackle B, or its equivalent, in combination with the bar D and spring *e*; the above parts being arranged to operate as and for the purpose set forth.

No. 21,994.—O. B. THOMPSON, of Hudson, Ohio.—*Improved Lock.*—Patent dated November 2, 1858.—This invention consists in the use of a series of slotted tumblers and guards peculiarly arranged, and placed in such relation with a bolt tumbler and adjustable lever that a very simple burglar and powder proof lock is obtained.

The inventor says: I *claim* the tumblers *f* and guards *g*, constructed and arranged substantially as shown, and placed in such relation with the plate *b* of the bolt tumbler C and slides *j* to operate as and for the purpose set forth.

I also claim, in combination with the above parts, the bar H, arranged substantially as shown, so as to be acted upon by the arbor bit *s*, to adjust the tumblers *f*, as the bolt B is shoved out from the case.

I further claim the plate *l* and buffer *m*, placed at the back part of the slide-chamber E, substantially as and for the purpose set forth.

No. 22,048.—LINUS YALE, jr., of Philadelphia, Pa.—*Improvement in Locks.*—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I make no claim to the particular form of tumblers or other parts of the lock, as my improvement can be adapted and applied to any of the old forms of locks, however simple or however complex and costly.

But I *claim* providing a main bolt or bolts with two or more systems or sets of stops or tumblers, or their equivalents, whether alike in form and construction or dissimilar, commanded by or obedient to one and the same key, or its equivalent, or by separate and distinct keys, or their equivalents, so placed and arranged, whether near or distant, that when the key is applied to either one set, that set shall release the bolt, irrespective and independent of either of the other sets, substantially as and for the purpose described.

No. 22,146.—WILLIAM MOORE, of Brooklyn, N. Y., assignor to GEORGE S. CAMERON, of Chester C. H., S. C.—*Improvement in Locks.*—Patent dated November, 23, 1858.—This improvement relates to a peculiar check tumbler that acts when the door is locked from the inside, and is turned out of the way while the lock is operated from the outside of the door; it thereby takes the place of the revolving check tumbler.

The inventor says: I *claim*, as an improvement on my said patent of September 14, 1852, the check tumbler *l* and spring *m*, in combination with the tumbler *f*, that is acted on from both key-holes *h* and *i*, substantially as and for the purposes specified.

No. 22,319.—CHARLES S. WESTCOTT, of New York, N. Y.—*Improved Lock.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.



*Claim.*—The inventor says: I am aware that revolving slotted wheels have been heretofore used, and therefore distinctly disclaim the invention of the same.

I also disclaim the invention of the direct entering of a shoulder or attachment to the bolt into the slotted wheels.

But I *claim* the ungearing of two sets of wheels, when a lock is unlocked, in such a manner as to allow the slotted wheels which receive the tongue of the bolt to remain stationary while the remaining wheels can be turned to any desired position, so that the combination can be changed through the key-hole from the front of the lock, said ungearing being effected by means of a bar K, or its equivalent, acting upon a movable piece of metal which supports the shaft upon which one set of wheels revolve, said bar being moved by the action of throwing the bolt, so as to throw one set of wheels out of gear with the slotted wheels when the lock is unlocked, and bring them into gear again when it is locked.

No. 22,425.—SPENCER HIATT, of Indianapolis, Ind.—*Improved Lock*.—Patent dated December 28, 1858.—Upon the lever A is the catch-plate B, designed to operate in the notches of the tumblers 1, 2, 3, 4, 5, 6, 7 and 8. M is a comb spring designed to operate upon each tumbler separately. The tumblers 1, 2, 3, 4, 5, 6, 7 and 8 are designed to hold the lever A up to the bolt N, and the stop or catch S into the notch U or Z, when the catch-plate B is withdrawn from the notches in the tumblers, and rests upon the top of the same. E is a follower, upon which are the levers or arms V and K, designed to force back the catch-bolt P and lock-bolt N, by operating the yoke Q and lever F. L is a rest firmly attached to the lever A, and extending to the lever F, holding it up, and preventing the catch G from falling into the notch X, while the bolt N is held by the catch S.

The inventor says: I *claim*, first, the combination and arrangement of the tumblers 1, 2, 3, 4, 5, 6, 7 and 8, and key bits 9, 10, 11, 12, 13, 14, 15 and 16, with the lever A, sliding yoke Q, and lever arms V and K, when constructed and arranged substantially as set forth.

Second. The combination of the comb spring M and slide R with the tumblers 1, 2, 3, 4, 5, 6, 7 and 8, when constructed, arranged, and operated substantially as and for the purposes set forth.

No. 21,962.—JOSEPH HOFFACKER, of New York, N. Y.—*Improved Lock and Key*.—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, constructing a lock which is closed or locked by the bolt shooting forward and upward, and which is opened or unlocked by a screw key urging the bolt downward and backward, substantially as described.

Second. The construction of the bolt, in combination with the barrel and the three springs, substantially as described.

Third. The combination of the door handles with the lever, substantially as described.

Fourth. The construction and operation of the screw key, substantially as described.



No. 21,689.—L. H. MILLER, of Providence, R. I.—*Improvement in Bank Locks*.—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that slotted sliding tumblers have been used in various forms of locks, and arranged relatively with bolts and bolt latches in various ways, and I therefore do not claim, broadly, the slotted tumblers.

But I *claim*, first, a series of slotted sliding tumblers M within a sliding box L, arranged in such relation with the bolt or a bolt latch C that each tumbler will require to be adjusted separately, in order to allow the bolt to be shoved back and the lock unlocked.

Second. The arrangement of the hollow arbor E, rod *g*, lever G, and tude *l*, with projection *n* attached, in connexion with the notched disk H and click H<sup>1</sup> and a key O, constructed as shown, or in an equivalent way, whereby the tumbler box L is moved the correct distance for the several tumblers to be brought in line with the projection *n*, and the several tumblers adjusted at each movement of the box, as described, and for the purpose set forth.

Third. Operating the sliding tumbler box L from the arbor E by means of the part pinion I and the rack *p* of the plate J, arranged in such relation with the dogs *d e*, slide D, and bolt B, that, by the time the tumblers M are all properly adjusted, the dogs *d e* will respectively raise the latch C and throw back the bolt B.

No. 21,862.—STEPHEN S. BURLINGAME, of Warwick, R. I., assignor to Himself and WILLIAM TAYLOR, of said Warwick.—*Improvement in Bank Locks*.—Patent dated October 19, 1858.—This invention consists in one or more pairs of spring slides arranged to close the key-hole when the key is withdrawn and lock the working key, the slides being so constructed as to be pushed open by the point and bits of the key when it is inserted; also, in providing the working key with spring pawls to lock it when the key is withdrawn, the pawls being so constructed and arranged as to be pushed out by bits of the key when it is inserted; and in locking the second working key and stopping the key-hole, and in fastening the working key to the back plate of the lock.

The inventor says: I *claim* one or more pairs of spring slides *q q* to close the key-hole Z<sup>2</sup>, provided with pins to enter the notches *n n*, and lock the collar or working key W, the slides being so constructed as to be pushed open by the point and bits of the key Z when it is inserted as described.

I claim the collar or working key W, in combination with the pawls *p p*, so constructed and arranged as to be pushed out by the bits V V of the key Z, when it is inserted as described.

I claim closing the key-hole and locking the working key T by the sliding tube or collar S<sup>1</sup>, pushed out by a spring and locked in the key-hole by the bolt V, as described.

I claim fastening the working key T to the back plate of the lock by means of a flange and plate, substantially in the manner described.



No. 21,947—LYMAN DERBY, of New York, New York.—*Improvement in Bank Locks*.—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: First. I *claim* the use of the bars or cross-bars secured on an axis eccentric to its true centre, for the purpose of obtaining gravity to unlatch them, in combination with the inside of the door of a safe or other place, substantially as set forth.

Second. I also claim the use of a pendulous latch lever, secured to the inside of a safe, in combination with the bars or cross-bars operating as set forth, on the inside of the door of a safe, and for the purposes described.

Third. I also claim the use of the application of a clock-work movement, in combination with an inverted Y-shaped pendulous latch lever and bars or cross-bars, on the inside of the door of a safe, for the purposes set forth.

No. 20,716.—WILLIAM JOHNSON, of Milwaukee, Wisconsin.—*Improvement in Bank and other Locks*.—Patent dated June 29, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, interposing between the key-hole of the lock and the racking stump or thrust plate of the bolt B centrally-pivoted horizontal tumblers, which, by the act of the key alone, are brought into proper position to allow the unlocking movement of the bolt when the key is withdrawn; the whole being constructed and capable of being operated as set forth.

Second. So connecting the sliding bridge-plate E to the sliding guard-plate G that the latter shall move to bring its slot in line with the slot in the socket by the motions of the bridge-plate, and allowing the bridge-plate motion only when the key shall be withdrawn from the socket, as described.

Third. Interposing between the horizontal tumblers T and the pin or stud of the bridge-plate an angular level L, constructed as and operated by the means described.

Fourth. The arrangement of the bolt-plate with the bridge-plate and the guard-plate in their relation to each other and the moving parts of the lock, so that, while being operated by the same means, they have different periods of motion, as set forth.

No. 19,927.—AMOS HOLBROOK, of Milford, Massachusetts.—*Improved Chronometric Lock*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the use, in the construction of automatic and chronometric locks, of jointed release levers, so arranged that their action, when released, shall be from the time-work, and so that the releasing of either lever from its rest on the time-work shall release one end of the crescent I, or its equivalent.

Second. The retaining of release levers while the lock remains locked upon fixed or adjustable rests, which shall receive all pressure necessary to insure the action of the levers when released by the time-work.

Third. The use of a crescent I, or its equivalent, so arranged that



the releasing of either end of it shall also release the unlocking spring or springs, and unlock the lock, as set forth.

Fourth. The use of a spiral grooved cylinder (operated by time-work) with the base or bottom of the spiral grooves full and entire, without notch or cavity, as set forth.

Fifth. The use of a hollow cylinder locking bolt revolving loosely in its bed when locked, as set forth.

Sixth. The adjusting springs J J K, or their equivalents, for the purposes set forth.

Seventh. The arrangement of a T guide, or its equivalent, with its guides and unlocking springs between the unlocking bolts, as set forth.

Eighth. The spiral spring bolt, operated from the outside of the lock plate, for the purpose of retaining the locking spring compressed till closing the door, as set forth.

No. 20,658.—STUART PERRY, of Newport, New York.—*Improvement in Combination Locks*.—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, a key of such construction, in combination with a lock without a key-hole or other opening from the outside to the working parts inside, that the said key may be applied to the lock without the aid of an index, figures, letters, or other marks that require a light to be seen, and which key shall govern with precision all the necessary movements of the shaft by which the slides and tumblers of the lock must be adjusted, substantially in the manner and for the purpose described.

Second. I claim, in the construction of locks without key-holes, the employment of two movable shafts, one of which adjusts the slide tumblers, both being accessible from the outside, and one within the other, substantially in the manner and for the purpose set forth.

Third. I claim the method described of adjusting the slides by means of the two movable shafts, which, when operated, are guided in their movements by the key above described, substantially in the manner and for the purpose set forth.

Fourth. I claim the restorer Q, in combination with cam R, shaft E, and bet F, by which all the movable parts in the lock are moved by the force of the hand only, and in the locked and unlocked position are held fast, substantially in the manner described.

Fifth. I claim so constructing the ring cam L that it shall move the slide carriage N at the proper moment, and that it shall hold said carriage fast at all other times, substantially in the manner and for the purpose described.

Sixth. I claim the steel arm  $D^1$ , or its equivalent arms, the peculiarly shaped slide  $y^4$ , substantially in the manner and for the purpose set forth.

Seventh. I claim the piston  $b^1$  for coupling the slide carriage cam L with the wheel G of the shaft D, for the purpose described.

No. 20,524.—LIVONIA WHITNEY, of Toledo, Ohio.—*Improvement in Door Locks*.—Patent dated June 8, 1858.—This invention is designed



for an inside lock or bolt, and is intended to supersede the usual slide bolts and catches hitherto employed for such purposes. The invention consists in the peculiar manner of securing the arbor of the knob  $F^1$  in the lock, said knob  $F^1$  having a bit  $a$  attached to its inner end and operating the bolt as the arbor is turned.

The inventor says: I do not claim the sliding bolt C and tumbler D operated upon by a bit  $a$ , for this is a well known and common device used in the majority of locks.

Neither do I claim attaching a knob  $F^1$  to an arbor having a bit  $a$  at its inner end, for this or its equivalent is used in cases where the arbor passes entirely through the lock and door.

But I *claim* the combination of the slotted plate H, arbor E, and washer G, as shown and described.

No. 20,571.—JOHN R. MARSTON, of New York, N. Y.—*Improvement in Door Locks*.—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim separately any of the parts, as they are well known.

I am aware of the patent of William Moore, September 14, 1852, and I therefore make no claim to any device patented to him.

But I *claim* the sliding key-hole cover I, constructed and operating substantially as described, and acting in combination with the bolt C, for the purpose of making a door lock proof against any outside communication when locked from the inside without requiring any adjustment, substantially as set forth and specified.

No. 21,504.—JACOB KINZER, of Pittsburg, Pa.—*Improved Door Lock*.—Patent dated September 14, 1858.—The nature of this invention consists, first, in the use of a plate on the inside of the lock which, by the insertion of the key, is moved to the other side of the lock and closes the opposite key-hole.

And, secondly, in the use of said plate upon which to raise or form circles or segments, wards or pins, or their equivalents, corresponding to the formation and changes of the key.

The inventor says: I *claim* the use of a plate on the inside of a lock, which, by the insertion of the key, is moved to the other side of the lock and closes the opposite key-hole, substantially as described.

I also claim the use of said plate upon which to raise or form circles or segments, wards or pins, or their equivalents, which correspond to the formation or changes of the key, thereby facilitating and cheapening the manufacture of the lock, substantially as described.

No. 20,063.—JAMES J. HAMILTON, of New Castle, Ind.—*Improved Lock for Doors*.—Patent dated April 27, 1858.—The nature of this invention consists in providing a lock with two sliding plates, one of which, when the bolt is thrown out, will close the key-hole on the side opposite to that on which the key is inserted, and further in providing a straddling lift, or catch, which holds the bolt and sides in the position given them by the key. These improvements are applicable to locks of any form, either mortise or box locks.



The inventor says: I *claim*, first, the slides G G, constructed, arranged, and operating substantially as described.

Second. The double lift E, constructed and operating as described.

No. 19,208.—JOHN SCHNEIDER, of Chicago, Ill.—*Improved Padlock*.—Patent dated January 26, 1858.—This invention consists in the peculiar construction and arrangement of padlock mechanism, whereby a bolt or bolts are shot through a staple or staples in the shackle by the action of the shackle itself, but which is not capable of being moved, except by the key or its duplicate applied to it from without.

The inventor says: In padlocks wherein the bolt is shot through the staple of the shackle by the direct action of the shackle itself, I *claim* the peculiar mechanism described, consisting of a bolt and tumbler rotating upon a common stationary spindle, in combination with an auxiliary trigger; the said parts being constructed, arranged, and operating in connexion with each other, in the manner substantially as specified.

No. 22,000.—E. M. MIX and J. E. MIX, of Ithaca, N. Y., assignors to Themselves and C. D. JOHNSON, of said Ithaca.—*Improvement in Padlocks*.—Patent dated November 2, 1858.—This invention consists in the use of a dog and a series of curved tumblers, constructed and arranged so as to render the lock extremely difficult to pick or open by any other instrument than the proper key.

*Claim*.—The combination of the curved or bent tumblers *a* and dog D, provided, respectively, with springs C *k*, and arranged relatively with the bolt or shackle B, to operate as and for the purpose set forth.

No. 19,815.—JOHN H. MORSE, of Peoria, Ill., assignor to LESTER PATEE, of said Peoria.—*Improved Permutation Lock*.—Patent dated March 30, 1858.—In operating the lock, the nicks in the indicator plates M M M must be turned to figures 1 1 1 on the dial plate. Turning the indicator plate to this position brings the slots G G G in plates B B B directly over the projections E E E on bar A; then by turning the arbor J the short arm *t* lifts the bar A, raising its lugs K K out of the slots N N in the bolt, thus releasing it. In the act of throwing the bolt, the short arm *t* is released from its bearing on the bar A, which allows the springs *f f* to take effect and force the bar back, so that the lugs K K enter the slots N<sup>1</sup> N<sup>1</sup> in the bolt and secure it.

The inventor says: I do not claim the arrangement by which a change of combination or mental key is produced.

Neither do I claim the arrangement for finding the combination in case it should be lost in making a change.

But I *claim* the “blind” or shallow slots *i i i*, or their equivalents, in the circular plates B B B, made and arranged so as to receive the points of projections E E E on the bar A, acting in the manner and for the purpose specified.

No. 19,529.—NATHANIEL WILTON, of Boston, Mass.—*Improved Piano Lock*.—Patent dated March 2, 1858.—This lock is composed of a bolt,



which is made to enter a recess or mortise in the edge of the lid, which requires the bolt to have two motions—one upward or vertical to enter the slot, and one forward or horizontal to secure the lid, by hooking over a plate set in the edge of the lid.

*Claim.*—The construction of the bolt plate B, with the slots 1 and 2, of the form shown, whereby said plate is guided in its two positive motions, as described, and actuating said bolt directly by the key in its motions, as set forth.

No. 22,057.—OBADIAH BAYLY, jr., of Dearborn county, Ind.—*Improved Safe Lock*.—Patent dated November 16, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the action of niche-wheel N N, in preventing the bolt B B from being passed back so as to unlock. The application of a movable pinion on the shaft-wheel W W, in connexion with a steel plate and hand, by means of which the lock is set to unlock at any given hour by the niche passing in front of the bolt B B, and permitting it to pass within the niche, and not until then.

Also, the application of security spring H, security lever F F, and security catch I, in allowing bolt B B to pass back and over the rim of niche-wheel N N, and again securing it opposite the rim of niche wheel N N, when the door is shut.

Also, the application of stop-levers S S and Q Q, in stopping the clock when the niche is opposite bolt B B, by lever S S coming in contact with the cogs of wheel U U of the clock.

Also, the application of spring L, in pressing bolt B B against the plate of the works.

No. 22,068.—LEGER DISS, of Utica, N. Y.—*Improved Safe Lock*.—Patent dated November 16, 1858.—The nature of this improvement consists in so constructing the lock as to render it impracticable to pick it, and also to render it impracticable to explode the lock or destroy it by powder introduced at the key-hole.

*Claim.*—The combination of the reciprocating stop-holder with the levers *h*, stops *a*, and the compound slotted tumbler D, the construction and operation being as described.

No. 21,655.—HENRY W. COVERT, of Rochester, N. Y.—*Improved Cam for Throwing Bolts in Locks*.—Patent dated October 5, 1858.—The nature of this invention consists in constructing the cam for throwing the bolt to locks, with a movable cone or wedged-shaped centre, and the rim or socket to be reamed out to fit, the centre being fastened and forming a part of the spindle to which the knob is attached. The knob can be turned or wrenched and no damage done the lock, and at the same time when the cone or centre is pulled forward into the socket or rim there is friction enough to throw the bolt forward and backward.

*Claim.*—The combination of the cone or wedge-shaped centre with the socket or outer rim, to form a cam for throwing the bolt to the lock, substantially as described and represented.



No. 21,567.—DANIEL R. KNOWLES, of Centre Groton, Connecticut.—*Improved Machine for Cutting Metal Bars*.—Patent dated September 21, 1858.—The object of this invention is to obtain a portable machine, and one that may be operated by a small expenditure of power, for cutting metal bars transversely with a clean, smooth cut. The invention is designed for the use of blacksmiths, repairers of rails, and others who cannot employ large machinery for such purpose, and consists in attaching a proper cutting tool to a reciprocating slide, which is connected with a lever and fitted in a rest, which has an automatic feed motion given it by the movement of the lever.

*Claim*.—The bed-piece A, provided with the clamp B, block or rest C, slide D, having the cutting tool E attached and connected with the lever G in combination with the automatic feed movement formed of the adjustable lever H, pawls I, ratchet J, and screw-shaft K, connected with the block or rest C; the whole being arranged to operate conjointly as and for the purpose set forth.

No. 19,945.—SAMUEL NOWLAN, of New York, N. Y.—*Improvement in Connecting Rigidly the Ends of Metal Beams*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that gas and water pipes are jointed together by pouring in molten metal to confine the ends of the pipes together, and that molten metal has been used to confine bolts and other fastenings in stone and other material; and I do not, therefore, claim broadly the use of molten metal poured into a joint to confine and retain it in place.

But I *claim* forming a rigid joint of two metal beams by pouring molten metal between the tongue of one beam and the mortise of the other, constructed respectively and arranged in the manner described; i. e., when the sides of the tongue, which have a latch projection, fit on to the sides of a similar shaped mortise and socket, and when the opposite sides of both the tongue and the mortise are corrugated, and leave a space between themselves into which the molten metal is to be poured, substantially in the manner and for the purposes specified.

No. 19,517.—E. A. SMEAD, of Tioga, Pennsylvania.—*Improved Machine for Forming Sheet Metal Pans*.—Patent dated March 2, 1858.—This invention consists in the employment or use of two dies or formers F G, one of which is attached to a plunger, and the other is provided with jointed sides *e f*, and works within guides which actuate said sides, all so arranged and operating that the body of the pan or vessel will be formed or swaged at a single operation from a plate of sheet metal.

The inventor says: I am aware that dies have been used for swaging or forming dishes, cups, boxes, and similar articles; and I do not claim, broadly, the employment of dies without reference to the peculiar arrangement and construction of the same.

But I *claim* the combination of the two dies F G, when arranged as shown, viz: the lower die G being provided with the movable side-pieces or strips *e*, actuated by the guides *i* as the die descends, the



upper die being attached to the frame C, actuated by the cam D, or its equivalent, for the purpose specified.

No. 22,044.—PETER L. WEIMER, of Lebanon, Pennsylvania.—*Improved Machine for Coiling Metal Pipe*.—Patent dated November 9, 1858.—The nature of this invention consists in providing a movable groove or die for the purpose of bending either hot or cold metal pipe into coils, which obviates the grooved cone or cylinder, and enables the coil to be removed from the cone or cylinder without hindrance, as said cylinder is a plain surface and made solid.

The inventor says: I do not claim any movable or springing arrangement for the purpose of keeping the movable die or groove in contact with the coiling mandrel during the operation of coiling the pipe.

But I *claim*, first, the coiling of hot or cold metal pipe on a plain cone or cylinder, by means of a movable groove or die, as described and specified.

Second. I also claim feeding the movable groove or die forward, so as to form the coil by means of a pattern-coil, or its equivalent, as described and specified.

No. 19,090.—DAVID HOWELL, of Louisville, Kentucky.—*Improved Machine for Bending Metal Plates*.—Patent dated January 12, 1858.—This invention is particularly applicable to boiler heads, and such like work. It consists in the employment of a series of rollers, operating in combination with a circular rotating bed or anvil.

*Claim*.—The use of a pair or series of rollers R R<sup>1</sup>, fitted to swinging frames of lever-like character, which are attached in an adjustable manner to a beam K, or its equivalent, and operated by a double screw S, or its equivalent, substantially as described, in combination with a rotating circular or annular bed or anvil, for the purpose set forth.

No. 19,866.—EDMUND MOREWOOD and GEORGE ROGERS, of Enfield, England.—*Improvement in Coated Metal Plates*.—Patent dated April 6, 1858.—A description of this improvement is too long for a place in this volume. The reader will have an idea of it by examining the claim of the inventors.

The inventors say: We *claim* the new article of manufacture herein described, termed coated metal plates, consisting of sheet metal prepared and coated with a mixture of repellant and preservative coating, substantially as herein set forth; the said coated sheet metal being intended as a substitute, for many purposes, for tin plates, galvanized iron, or other articles of that description, produced by dipping sheets of metal into melted metals.

No. 20,846.—W. J. GRANGER, of Chicago, Ill., assignor to D. J. LAKE and C. B. BROWN, of Chicago, aforesaid.—*Improved Punch for Perforating Metal*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.



The inventor says: I do not claim the employment of springs for the purpose of elevating the punch and retaining it in place.

But I *claim* the arrangement of a punch with a series of slides *j* accurately fitting both punch and tube, and retained in their places by springs K, or their equivalents, substantially as set forth, for affording a lateral support to enable the punch to withstand strain while operating.

No. 20,446.—WILLIAM SELLERS, of Philadelphia, Pa.—*Improved Lathe for Turning Metal Shafting*.—Patent dated June 1, 1858.—The claim and engravings will explain the nature of his invention.

*Claim*.—In combination with rotating cutters, substantially as described, the employment of a guide bar and sliding chucks, or their equivalents, for the purpose of keeping the rough bar in the line it is intended to have when finished, and preventing it from turning or vibrating during the operation, substantially as described and for the purpose specified.

No. 21,749.—LUCIEN FAY, of Cincinnati, Ohio.—*Improved Machine for Cross-seaming Sheet Metal*.—Patent dated October 12, 1858.—This invention relates to an arrangement of presenting seaming and reeling mechanism, chiefly designed to facilitate the “cross-seaming” of sheet metal for roofing purposes.

The inventor says: I *claim*, first, in the described connexion, with a cross-seaming tool, the gauge bar Q *q*, constructed and operating substantially as and for the purpose set forth.

Second. The grooved roller or reel D *d*, constructed substantially as explained, and employed in the described connexion with a cross-seaming tool to roll up the metal as joined, and afterward discharge the roll without unwinding, as set forth.

Third. The adjustable guides U U, in the described combination, with a seaming tool for the purpose of insuring accuracy of work.

No. 19,677.—TIMOTHY BROWN, of Georgetown, N. Y.—*Improvement in Casting Metallic Cheese Hoops*.—Patent dated March 23, 1858.—The object of this improvement is so to construct the mould that the halves, although precisely alike, shall fit together properly to compose a suitable hinge at one joint, and a suitable firm connexion to be opened and closed at pleasure at the other joint.

*Claim*.—The combination of the cylindrical guiding and supporting mould-piece A, provided with the flange bottom *a* and side projections *b b*, the semi-cylindrical mould-piece B, and the guide top C, all arranged in relation to each other as described, and united by the rods *c* and *d*, substantially in the manner and for the purpose specified.

No. 20,118.—S. W. WOOD, of Washington, D. C.—*Improvement in Making Metallic Nuts*.—Patent dated April 27, 1858.—The nature of this invention consists in a solid female die, in which the nuts are formed with a sliding hook, or its equivalent, for discharging the finished nut from said dye, and in a receding punch, which forms part of the solid female die, which recedes on the approach of the



corresponding punch, allowing said advancing punch to pass entirely through the metal to complete the orifice with but slight loss of material.

*Claim.*—A solid female die, with a sliding hook for discharging the finished nuts, substantially as set forth.

No. 20,165.—BENJAMIN MACKERLEY, of New Petersburg, Ohio.—*Improvement in Punching Metallic Tubes.*—Patent dated May 4, 1858.—A gouge-shaped wedge *k*, whose length corresponds with that of the tube to be punched, is inserted into the mouth of the tube, and is pressed between the under side thereof and the under side of the mandrel *a*, for the purpose of keeping the upper side of the mandrel firmly pressed against the upper side of the tube during the operation of punching apertures therein.

The inventor says: I *claim* the combination of the mandrel *a*, the punch *d*<sup>1</sup>, and the detent *j*, substantially in the manner and for the purpose set forth.

I also claim the use of the gouge-shaped wedge *k*, in combination with the mandrel *a* and the punch *d*<sup>1</sup>, substantially in the manner and for the purpose as set forth.

No. 20,794 —GEORGE HENDERSON and JACOB STEETLE, of Allegheny, Pa.—*Improved Lathe for Turning in Metals.*—Patent dated July 6, 1858.—This invention relates to a new centreing lathe for doing the kind of centreing practiced by machinists in metal, and consists in a novel combination and arrangement of mechanism for boring centres in line with the geometrical centre of any desired part, either of regular or multiform objects. A represents the shear of the lathe provided with a head B, in which is a spindle C holding a boring tool D, revolves and slides by means of the cone pulley E and handle wheel and screw F and G. H H represent two chucks made to slide freely on the shear and be concentric with a geometrical line parallel with the shear, extending through the centre of the boring tool and spindle C. K L represent the cover and driving wheel of the chuck H.

*Claim.*—The combination of the two chucks H H with a lathe, the whole being constructed and operated in the manner specified. This invention is designed to operate in metal.

No. 19,498.—JULIUS C. DICKEY, of Saratoga Springs, N. Y.—*Improvement in Shaping and Punching Metals.*—Patent dated March 2, 1858.—When a bar of iron is properly heated it is forced through the conical die *a* into the die *b* until it comes in contact with the punch; and as the shafts revolve the dies are closed upon the bar, and the metal which separates the die *a* from the die *b* is forced into the recess formed in the bar by the projections in the conical die, and the surplus metal is forced out of the conical die on to the bar; after which the punch is forced through the nut by the cam on the main shaft B passing through the opening in the metal which separates the die *a* from the die *b* into the die *a*.

*Claim.*—The conical die *a*, in combination with the finishing die *b*



and punch D, when constructed and operating in the manner and for the purposes set forth.

No. 22,211.—WILLIAM H. VAN GIESON, of Newark, N. J.—*Improved Machine for Plating Nail Heads*.—Patent dated November 30, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, combining the stop pawl  $f^1$  of the intermittently rotating die table J with the dog  $c$ , which give motion to the said table by means of a link  $f^3$  applied to produce the operation of the dog in combination with the pawl and the two series of ratchet teeth on the said table to lock the table, substantially as described.

Second. The pair of receiving jaws N N, with their cavity  $l$ , to receive and retain the nail while they are closed, applied and operating, in combination with the nail feeder and the intermittently rotating die table, substantially as described.

Third. The combination of a shaking apparatus for bringing the shells rim upward, and a curved conductor U for overturning them in their passage through it, applied substantially as described, to permit and insure the deposit of the shells crown upward in the dies.

Fourth. The combination of the pincers  $r$   $r$  and the plunger  $u$ , operating as described, in relation with the conductor U to take the shells therefrom and deposit them in the dies.

Fifth. The combination of the discharging plunger  $x$  and the stationary hood  $y$ , having a descending spout  $Y^1$ , with the intermittently rotating die table J, substantially as and for the purposes set forth.

Sixth. The stop motion, consisting of a feeding rod 27 suspended from a spring-catch 24 attached to the bar, which throws the machine in and out of gear, and operated substantially as described, by means of a cam H on the main shaft, acting on a spring 33, connected with the said rod, in combination with a stationary stop 26, or its equivalent, substantially as described.

Seventh. The arrangement of the nail-feeding apparatus, the shell-feeding apparatus, the shell-closing punch, the discharging apparatus, and the stop motion relatively to the intermittently rotating table, substantially as described.

No. 20,126.—HENRY GREEN and WILLIAM J. GORDON, of Philadelphia, Pa., assignor to HENRY GREEN, aforesaid.—*Improved Nail Machine*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, the combination of the carrying chains H H, and the rack chain J, with the nail rod holder, in the manner substantially as described, to move the rods laterally along the anvil and turn them simultaneously.

Second. The arrangement of the front edge  $r$   $r$  of the anvil obliquely to the direction of the movement of the carrying chains, substantially as described, for the purpose of causing the nails to be drawn from head to point in the foregoing process.



No. 20,312.—JOHN L. KRAUSER, of Reading, Pa., assignor to Himself and JAMES HARPER, of Philadelphia, Pa.—*Improved Nail Machine*.—Patent dated May 18, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, forming a groove or grooves in the anvil cutter to receive the flange or flanges on the nail plates, as set forth.

I also claim, in combination with a vibrating anvil or anvil cutter, the placing of the cutting edge of said cutter at or near the centre of motion of said vibration, in the manner and for the purpose set forth.

I also claim the rims or adjustable sections B, on the perimeter of the rotating cutter wheel C, for regulating the size of the nail to be cut, as set forth.

I also claim, in combination with a rotating cutter wheel and a vibrating anvil, the inclination given to said anvil and its cutter, for the purposes stated.

No. 20,829.—HIRAM W. TAYLOR, of Birmingham, Pa.—*Improved Nail Machine*.—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the use of a rocking journal box for the sleeve of the feeding rod, to permit of the elevation of the lower end of the feeding rod when the nail plate is turned, or when a full nail plate is to be inserted.

Second. The combination of the pivoted lever  $z$ , with the lugs  $c^1$  on the cog wheel, and the inclined projection on the segmental cog wheel, for the purpose of securing their gearing together in the correct relative situation, as described.

Third. The use of a crab  $f f^1$ , for connecting shafts, having one lug nearer the centre than the other, so that the inner lug of one half of the crab will pass the outer lug on the other half without locking, for the purpose of causing them to gear always at the same relative point in their revolution.

Fourth. The use of a bottom or stop at the head of the feed rod in combination with a lever, through the extremity of which the feed rod slides freely until the button or stop touches or presses forward the lever, for the purpose of disconnecting the feed apparatus from the nail machine automatically so soon as the nail plate is worked up.

Fifth. I claim the use of the gripping jaws, constructed as described, in combination with the rest  $K^1$  and the spring  $S^3$ , for the purpose of producing the requisite feed motion of the feed rod.

No. 19,631.—G. C. GRODHAUS, of Jamestown, Ohio.—*Improvement in Cut Nail Machine*.—Patent dated March 16, 1858.—The nail-plate, either hot or cold, is put in at the upper end of the sheath  $b$ , and immediately finds its way to the bottom thereof, and comes in contact with the guide-plate H, which is also a gauge-plate. The vibratory motion of the sheath C and fork  $i$  in one direction brings the extremity of the nail-plate between the cutters D L, and the cutter D descending at the proper time cuts off a nail; after which the sheath C and fork  $i$  immediately commence moving the nail rod towards the cutters  $D^1$



L<sup>1</sup>, and as soon as the end of the rod is clear of the cutters D L it descends the sheath C by gravitation till stopped by the gauge-plate H, which conducts it to the cutters D<sup>1</sup> L<sup>1</sup> in a proper manner for a nail to be cut off by those cutters.

The inventor says: I *claim* the arrangement of the sheath C, the circular guide H, and the fork-bar I, as described; the said sheath C having its upper end pivoted at *e*, and its lower end travelling upon a track *f*, the circular guide H extending from one set of cutters to the other, and the curve of its arc corresponding to the sweep of the lower end of sheath C, and the fork-bar I being attached to and carried by the same bar F which actuates the sheath C.

No. 21,198.—JOHN W. HOARD and THOMAS A. SEARLE, of Providence, Rhode Island.—*Improved Nail-Plate Feeder*.—Patent dated August 17, 1858.—This invention consists in a certain contrivance for varying the distance of the feeding movement to cut nails of different widths or thicknesses. It also consists in a certain arrangement of parts for stopping both the forward and rotary motion of and causing the running back of the plate-holder when the plate is all cut up.

The inventors say: We *claim*, first, the polygonal concave-sided and oblique-grooved feed-bar K, applied in combination with the pins *e e* on the feeding-shaft, substantially as set forth, to produce the feed movement of said shaft by its own revolution, and to provide for variation in the feed.

Second. The arrangement of the feed-bar K, the driving-shaft R, and driving-gear I, and the plate *t*, for throwing out the stop pawl of the running back mechanism in the same movable frame, which is liberated by a latch lever, actuated by the feeding-shaft, and thus permitted to be operated upon by a spring L, or its equivalent; the whole operating substantially as set forth.

No. 21,222.—JAMES H. SWETT, of Pittsburg, Pennsylvania.—*Improved Nail-Plate Feeder*.—Patent dated August 17, 1858.—The nature of this invention relates to a nail-plate feeder which forms its several functions of turning the nail-plate; advancing it to the gauge partly by a positive motion, and partly by its own momentum, after it is released from its positive motion; and opening the jaws to gripe the nail-plate to release the end of the plate and be ready to receive another plate automatically, and by an arrangement or combination of devices.

The inventor says: What I *claim* is, first, in combination with sleeve E and rod F, the cam slots *a a* and pivoted switch *b* for automatically turning said rod first in one direction, and then in the opposite one, for the purpose set forth.

I also claim giving the rod and nail plate a positive movement during the first of its forward motion by means of the crank Q, pitman R, arms S, crosshead U, levers V, and their projecting portions *u*, which are then forced apart by the cam wedge W<sup>2</sup>, and then releasing them by the action of the springs *v*, whilst in motion, so that



their momentum will carry the nail plate up to the gauge, substantially as described.

I also claim, in combination with the nail plate grippers, the spring dogs for automatically opening said grippers to drop the end of the nail plate and be ready to receive another one, as set forth.

I also claim, in combination with the rod F and swinging plate M, with its stud *j*, the ledge N, with its openings, for automatically throwing the feed within out of gear when the nail plate is used up, and into gear again when a fresh plate is supplied, substantially as set forth.

I also claim, in combination with the plate M, the traversing projection Z for catching and drawing back said plate when the nail plate is used up, substantially as set forth.

No. 22,238.—ADRIAN V. B. ORR and GIDEON BAUTY, of Frederick, Maryland.—*Improved Wrought-Nail Machine*.—Patent dated December 7, 1858.—The nature of this invention consists in forging spikes, nails and rivets with the grain of the iron, and at a welding heat, by means of excavated faced dies, or swages, and heading the spike, nail, or rivet before the forging dies shall open, thus finishing at a single operation, and obviating the necessity of removing the unfinished nail from the forging dies to be headed by another operation.

The inventors say: We *claim*, first, the dies E and F, constructed in the manner described, and when acting simultaneously, in combination with the heading swage upon the heated bar, as specified.

Second, we claim with the said header and dies, the use of the elongated tweer, opening in the manner and for the purpose set forth.

No. 19,993.—JAMES HOUCK, of Green Castle, Indiana —*Improvement in Clenching Horseshoe Nails*.—Patent dated April 20, 1858.—A is a post two feet in height, two inches in diameter at the bulge in the center, and tapering towards the top to about three-fourths of an inch in diameter; B. is a band around the top; C an iron or steel cap or plate about two inches in diameter, secured to the top of the post; D is a wooden or metal plate into which the post may be inserted, and to be secured by bolts or screws; and E E E are braces which may be used to steady the post.

*Claim*.—The use of the post A when constructed with the cap C and band B, in the manner and for the purposes described in my specification.

No. 20,141.—TISDALE CARPENTER, of Providence, Rhode Island.—*Improved Machine for Making Horseshoe Nails*.—Patent dated May 4, 1858.—The operation is as follows: The workman feeds the plate to the shear *m*, turning it over at each cut so that the heads of the blanks are all in one direction when they fall into the box R. The spring *o* prevents them from falling out, when the descent of the shear *m* as it forces in a blank at the top forces out one at the bottom, which drops into the die *e*; as the table I revolves a portion of a turn, at each revolution of the shaft D a fresh die is brought under the box R. When the die containing the nail has come round beneath the



cleaver U, the pin  $x$  on the wheel H strikes the dog  $v$  and revolves the shaft V; this slides the piece U in its slots, and the point of the claw  $s$  strikes under the point of the finished nail and drives it out of the die  $e$ .

The inventor says: I *claim* the described machine for making horseshoe nails, consisting essentially of the revolving die-table I, arm P carrying the swage  $l$  and shear  $m$ , the carriage S with its swage  $b$ , constructed and operating in the manner substantially as set forth.

Second. I claim the receiving box R with its retaining spring  $o$ , substantially as described.

Third. I claim, in combination with the table I, the guide  $h$ , arranged and operating as set forth.

No. 21,213.—S. S. PUTNAM, of Boston, Massachusetts.—*Improved Machine for Forging Nails*.—Patent dated August 17, 1858.—This improved machine is designed for the manufacture of horseshoe nails, there being suitable dies in the face of the hammers for the purpose. The claim and engravings explain the nature of the improvements.

The inventor says: I do not wish to limit myself to interrupting the motion of the horizontal hammers while the nail is being cut off, as under certain circumstances the vertical pair may be held stationary, or even all four of the hammers may be caught while the nail or other article is being cut off.

Thus far I have spoken of my improvements as particularly applicable to machines for making horseshoe nails, but it is evident that they are equally applicable to machinery for forging a great variety of other articles. I do not, therefore, limit my claims to machinery for any particular class of forging, but intend to apply them to forging machinery wherever they may be applicable.

First. I *claim* hanging the springs which actuate the hammers at points independent of the pivots upon which the helves vibrate, and so far removed therefrom that they shall bear upon the helves nearer to the hammer faces, when the hammers are raised, than at the instant when the blow is given as set forth, for the purpose specified.

Second. I claim the spring E for actuating the hammers in combination with the set plates F and screws  $v$ , for regulating the tension of the same, as set forth.

Third. In combination with the hammers A and side-pieces H, I claim the adjusting checks I, operating in the manner described, for the purpose specified.

Fourth. And in combination with a mechanical cut-off, I claim holding the hammers out of action and without the reach of the cutters whilst the nail is being cut off, as set forth.

Fifth. I claim pivoting the lever  $M^2$  to any adjustable block  $O^2$ , for the purpose of regulating the motion of the nail-rod, as set forth.

No. 21,005.—JOHN L. KRAUSER, of Reading, Pa.—*Improvement in Manufacturing Nails*.—Patent dated July 27, 1858.—The object of this invention is the production of an improved point upon that description of cut nails whose two rolled sides are parallel, and whose cut



faces are tapering from head to point. Its nature consists in so beveling the edges of nail plate that the blanks cut therefrom will be tapering or V-shaped at both ends, the head being formed by driving the heading tool against the widest of the tapering extremities *c c*.

The inventor says: I do not claim rolling nail plate to an edge one side by inclining its faces, as is practiced in making horse-shoe nail blanks.

Nor do I claim sharpening a single edge, as in the strips of wood from which shoe pegs are split, as my invention is altogether distinct from these cases.

But I *claim* the process, as set forth, of making cut nails with improved points, that is to say, beveling both edges of the nail plate, so that the blanks shall be wedge-shaped at both ends, as shown in fig. 2, and forming the head by the action of the heading tool against the widest end of the blank, as set forth.

No. 19,364.—DARIUS J. HENDRICKSON, of Otego, N. Y.—*Improvement in Tools for Clenching Nails*.—Patent dated February 16, 1858.—The nature of this invention consists of an instrument similar in some respects to common pincers, or pliers used by blacksmiths or farmers in pulling shoes from horses' and cattle's feet; but the jaws of this instrument are so arranged that by applying one of the jaws to the bottom of the foot, on the head of the nail, the other jaw clasps or hitches on to the point of the nail on the outside of the hoof, and then, by shutting the instrument together, it draws down the point of the nail and firmly clenches the nail.

*Claim*.—The construction of the lips or jaws of pliers, as described, for the purpose of clenching the nails with which the shoes are fastened to the feet of horses and cattle, the clenching being done without a hammer or pounding as heretofore, as set forth and described.

No. 19,123.—JAMES P. BLAKE, of Waterbury, Conn.—*Improved Machine for Covering the Heads of Trunk Nails*.—Patent dated January 19, 1858.—This invention consists in the use of dies so made and arranged that the several parts comprising the filling of the head and the shell or cover of the same, that it may be first snugly compressed together and the shell then closed firmly the several parts, the device working automatically.

The inventor says: I would here remark that I distinctly disclaim the invention of a rotating bed for carrying the dies, as this is seen and claimed in J. G. Davy's patent rivet machine, of July 3, 1849.

Nor do I claim any of the parts shown in Daniel Dodge's nail machine, patented June 22, 1852.

But I *claim* the sockets *e*, provided with the arbors *f*, in combination with the dies or plungers *F G*, constructed and arranged so as to operate conjointly, as and for the purpose set forth.

No. 21,812 —OTIS BREDEN, of St. Louis, Mo.—*Improvement in Manufacture of Wrought Nails*.—Patent dated October 19, 1858.—The nature of this invention consists in the employment and attachment of the furnace *M* over the machine, together with the several die faces,



movable and stationary, forming the die by which the nail is made, and the machinery attached thereto for operating the same, also the chisel *q* for cutting the bar *W*, and the heading apparatus under the bed plate *A*.

*Claim.*—First. The die faces *a b c* and *d*, constructed and fitted as described, operated in connexion with the slides *k l* and *J*, the crank *m*, and the cams *C D C D*.

Second. The use of the bar *n* for moving out the arm *o*, and the spring *P* for forcing in the chisel *q*, which is attached to the arm *o*, to cut off the nail.

Third. The attachment of the rod *i* to the crank *s*, working the feed gearing *g g*, causing the rollers *e e* to revolve and feed the iron from the furnace *M* into the die faces *a b c* and *d*.

Fourth. The employment of the header wheel *a a* and the operation of the rods *f f*, attached to the crank *s s*, for moving the same around, in order to bring the nail opposite the header die *c c*.

Fifth. The employment of the header die *c c* with the slide *d d*, for the purpose of forming the head, together with the pawl *y* for holding up the slide *d d*, and the motion of the cam *X* in lifting the trigger of the pawl *y*, leaving the slide *d d* free to be forced in to head the nail by the spring *e e*.

No. 21,599.—RICHARD H. COLE, of St. Louis, Mo.—*Improvement in making Nut Blanks*.—Patent dated September 28, 1858.—This invention consists in preparing metallic nut blanks by partly pressing the hole or eye into them against a blank surface with a round or square pointed punch, while the said blank is confined in a die, whereby the centre of the blank will be pressed in the body of the nut, which will thus be made thicker than the bar from which it was taken.

*Claim.*—Preparing the nut blank by driving a punch into it, while it is confined against a blank surface, by means of the mechanism constructed and arranged substantially in the manner set forth.

No. 20,145.—RICHARD H. COLE, of St. Louis, Mo.—*Improved Nut Machine*.—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The use of a traversing die, whereby the nut blank is first passed and prepared on the blank surface of the said die, and afterwards punched and finished over a hole in the same die, substantially in the manner described.

No. 21,551.—RICHARD H. COLE, of St. Louis, Mo.—*Improved Nut Machine*.—Patent dated September 21, 1858.—This invention consists in cutting the nut blank entirely off from the bar with two knives, one of which is to act from each side of said bar so as to deposit the said blank between a pair of vibrating jaws or formers; and of so arranging the said jaws as to cause them to press the sides of the nut blank to the required form while carrying it from the place where it is cut from the bar, to where it is to be punched. And also in causing the jaws to be opened by a yielding force; and also in a peculiar construction of the punches and die upon which the nut is punched.



The inventor says: I *claim*, first, the arrangement of two knives G G, whereby they are made to act simultaneously on each side of the bar, so as to cut the nut blank entirely off and deposit it between the vibrating jaws or formers K K, substantially as described.

Second. And I also claim the arrangement of the vibrating dies or formers K K, whereby they are made to press the sides of the nut to the required form while carrying it from where it is cut off to where it is to be punched on the die O, substantially in the manner set forth.

Third. And I also claim the spring N, as arranged with the afore-said jaws or formers, whereby they are opened by a yielding force, as described.

Fourth. I do not claim facing the dies or punches with steel, as they are both made entirely of that metal; but I claim making them in three separate pieces or parts substantially as described, so that I can renew one part and retain the other so as to economize material.

No. 21,860.—SAMUEL H. WHITAKER, of Cincinnati, Ohio.—*Improvement in Nut Machines*.—Patent dated October 19, 1858.—This invention relates to a provision for making metallic nuts with the least practicable waste, most of the “core” or punching being incorporated in the substance of the bar or nut.

The inventor says: Being aware that nuts have long been forged with very little waste by a skillful and laborious process on the anvil, I disclaim effecting such results apart from automatic means.

But I *claim*, first, the die-box N e f g, and punch D, or their equivalents, operating as set forth, so as to embody the greater portion of the wad or core in the nut or bar, while confined on all sides save one, in the act of punching.

Second. The arrangement of the punches D G and I, dies E and H, and perforated bridge N, or equivalent devices operating together substantially in the manner described, for the automatic and economical manufacture of hot pressed nuts.

No. 22,310.—JULIUS B. SAVAGE, of Southington, Connecticut.—*Improvement in Nut Machines*.—Patent dated December 14, 1858.—This invention consists in the use of a cutting device, dies, punch, and a series of adjusters and conveyors, arranged so that the blanks are cut off from the bar, properly compressed, or formed and punched ready for the tap, the several parts working automatically.

*Claim*.—The employment or use of the cutter E, dies L M F, and punch G, in connexion with the conveyors adjusters, j k l m n, and the jaws P Q, or their equivalents, the whole being arranged and combined to operate as and for the purpose set forth.

No. 21,574.—SAMUEL NOBLET, of Halifax, Pennsylvania.—*Improved mode of preventing Nuts from unscrewing*.—Patent dated September 21, 1858.—The nature of this invention consists in preventing nuts or bolt heads from turning, by inserting below them a flexible metallic washer, one end of which is turned up against the head or nut, and the other held immovably in place, either by being sunk into the body



of the timber through which the bolt passes, or by being turned down over some rigid portion of the same, or by being held by another bolt.

*Claim.*—Preventing bolt heads or nuts from turning, by inserting below them a flexible metallic washer, one end of which is turned against the head or nut, and the other held immovable in place, substantially as described and represented.

No. 19,670.—NATHANIEL CONKLING, of Brooklyn, New York.—*Improvement in Machine for Crushing Ore.*—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim for crushing or mixing any substance or substances, wheels, or one or more spheres or heavy balls, made to roll around in a stationary, circular, endless trough, nor do I claim arranging the axis of the trough at an inclination from a vertical line when spheres or balls are placed in said trough and it is put in rotation; nor do I claim the application of a grinding wheel to a vibrating shaft, supported by a post, as in the machine of Davis and Miner, before mentioned.

But I *claim* in the machine constructed in manner and so to operate substantially as described; that is to say, with its circular trough arranged and made to revolve horizontally, or thereabouts, and each of the wheels applied thereto, in such manner that it may be stationary with respect to said trough, except in being capable of revolving on its axis, and of rising up and down, to accommodate itself to the ore in the trough; during the revolution of said trough in supporting each wheel *G* by means of a rocker frame and guides applied to it and the main frame, or arranged therewith, substantially in the manner before specified.

And I also claim the arrangement of a deflecting scraper with respect to the inner surfaces of each wheel and the trough, and so as to operate substantially in manner and for the purpose as before specified.

No. 20,666.—HORACE P. RUSS, of Russville, California.—*Improved Ore Separator.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The series of inclined circular plates *a a*, in which the water passes from one plate on to the next, while the metallic particles are retained in cavities in the surfaces of said plates, substantially as and for the purposes specified.

No. 20,756.—HEZEKIAH BRADFORD, of New York, New York, assignor to HORATIO BOGERT, of said New York.—*Improved Ore Separator.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: What I *claim* is making the sieve box *a*, which has an up and down motion, with apertures above the sieve, or the equivalent thereof, when acting in and in combination with water or a surrounding tank or trough, substantially as and for the purpose specified.



And I also claim, in combination therewith, the partition, or its equivalent, in the water tank *i*, substantially as specified, to keep the matter which is washed over separate from the substances which pass through the meshes of the sieve, as set forth.

I also claim covering the surface of the sieve with particles of matter of larger size than the meshes of the sieve, that they may lay on and not enter or pass through such meshes, but act as valves to such meshes as described when such mode of operation is to be employed for separating substances of different specific gravity which have been prepared and assorted so as to be of less size than the meshes of the sieve that they may pass through such meshes freely, substantially and for the purpose specified.

No. 22,138.—L. STADTMULLER, of Bristol, Conn.—*Improved Ore Separator*.—Patent dated November 23, 1858.—This invention so operates as to separate the lighter from the heavier portions of crushed ore by projecting said ore with an upward current sufficiently strong to bear upward the lighter portions of the ore, while the heavier are allowed to subside downward through the ascending current, and pass off below, the operation being continuous.

*Claim*.—The apparatus described for sizing ores, constructed and arranged substantially as specified.

No. 19,338.—HENRY BARNARD, of Morristown, N. Y.—*Improved Gold Washer*.—Patent dated February 16, 1858.—This machine consists of a series of concave and convex pans *C C*<sup>1</sup> furnished with rims *k k* projecting from their upper side. The pans are fastened on an upright shaft *B*, which rotates horizontally, and vibrates laterally and vertically by means of machinery. The substances to be washed are put into the top pan with a stream of water; the finer particles of gold, owing to their lightness, are carried through the central openings of the first pan to the second, which is convex, and the greater part of the precious substances deposited behind the annular rims, while the lighter ones are carried over the outer periphery of the second pan to the third concave pan, and so on through the whole series of pans.

*Claim*.—The employment of a series of pans *C C*<sup>1</sup> furnished with a series of annular retention rims *k* projecting from their upper side, and arranged one below another, fast on a horizontal revolving and vibrating shaft, and being alternately larger or smaller in size than one another from the top to the bottom of the series, and alternately inclined inward and outward, or made concave and convex, substantially as and for the purposes set forth.

No. 19,556.—THADDEUS FOWLER, of Waterbury, Conn.—*Improved Pin Sticking Machine*.—Patent dated March 9, 1858.—This improvement consists in the manner of receiving the pin from the lower end of the conductor, and carrying it away and inserting it into the crimped paper; and in the manner of feeding the paper, both laterally and longitudinally, so as to stick one pin at a time; and in giving all the motions of receiving, conveying, and inserting the pins, as well



as crimping, clamping, and giving *both* feeding motions to the paper by the operation of one cam wheel.

The inventor says: I *claim* the combination of the lateral feeding motion of the paper with the longitudinal feeding motion of the paper, when the two motions are effected, substantially as described.

Second. I also claim the method of taking the pins from the conductor in combination with the method of inserting them, one at a time, into the crimped paper, when this is effected substantially as described.

No. 21,541.—CORNELIUS VAN VLIET, of Winsted, Conn., assignor to the New England Pin Company of said Winsted.—*Improved Pin Sticking Machine*.—Patent dated September 14, 1858.—This improvement consists in the manner of separating and guiding the pins, so that they will fall with their points directly on the crimped and clamped paper in vertical positions, ready to be inserted by the descending motion of the series of punches or drivers.

The inventor says: I distinctly disclaim the punches or drivers as such, as they have been well known for half a century.

I also distinctly disclaim the crimping bar as such, they having been patented in England to Miles Berry in the year 1839, and in the United States to J. J. Howe, of Derby, in Connecticut, in the year 1843.

I also distinctly disclaim the sliding separator as such, as that was patented to J. B. Terry, assignee of Thomas W. Harvey, January 3, 1854.

I also distinctly disclaim the channel ways as such, they having long been known and used for arranging screws, pins, &c.

I *claim* the combination of the series of channel ways with the sliding separator, when constructed and made to operate substantially as described.

Second. I claim the combination of the punches with the sliding separator, when constructed and arranged substantially as set forth.

Third. I claim the combination of the crimping bars, with the punches, sliding separator, and channel ways, when constructed and arranged and made to produce the result, substantially as described.

No. 20,171.—CLIFFORD POMROY, of Pottsville, Pennsylvania.—*Improved Cast-Iron Pipe*.—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—A cast-iron pipe chilled inside, as a new article of manufacture, for the purpose of conveying fluids impregnated with or containing substances which soon destroy iron pipes which are not so chilled.

No. 19,852.—W. HUDGIN, of Washington, District of Columbia.—*Improvement in Coupling Pipes*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Effecting the combination of the main and branch pipes A B by means of an open coupling B<sup>1</sup>, which is furnished with an enlarged passage *a* to receive the main pipe A, a passage to receive or



communicate with the branch pipe B, and a set screw *c* or wedge and key, and suitable packing to make a tight joint and always maintain the same, substantially as and for the purposes set forth.

No. 20,717.—DAVID KAHNWEELER, of Wilmington, North Carolina.—*Improvement in Pipe Coupling*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Combining with the male section *a* of the joint an axial stem or rod *b*, which passes into and through the female section *e*, said stem having upon its projection end a screw thread to receive a tightening nut *d*, and the joints *w* and *x* being provided with suitable washers, all as set forth.

No. 19,944.—CHARLES MONSON, of New Haven, Connecticut.—*Improved Conduit Joint for Gas Pipe*.—Patent dated April 13, 1858.—A B exhibit the two leading tubes connected by an universal joint C formed of a ring *a* or its equivalent, and two branches or arms *b b* or *c c* projecting from each leading tube and jointed to the ring. Extended from one leading tube A to the other is a flexible tube D, made of caoutchouc or other suitable material.

*Claim*.—The described new mode of connecting two leading tubes A B, viz: by a flexible tube D and a joint, which will not only allow one tube to be moved into one or more angular positions with respect to the other tube, but so connect the two leading tubes as to relieve the flexible tube from injurious longitudinal or tensile strain, as specified.

No. 19,313.—CHARLES E. ROCKWELL, of New York, New York.—*Improved Lead Pipe Machine*.—Patent dated February 9, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim, broadly, the making of the die-plate of greater diameter than the bore of the cylinder, for I am aware that this is seen in Kerh & Krenznach's plan, Voight's Technological Journal; but in this device the die-plate, although larger than the bore of the cylinder, is not adjustable in a lateral manner, or by set screws.

But I *claim* having the space between the adjustable die-plate *e* and the base-plate *m* covered or protected by the end of the lead cylinder, the whole constructed as and for the purposes set forth.

No. 20,387.—MICHAEL BOWES, of Charlotte, North Carolina, assignor to Himself and GEORGE B. WATERHOUSE, of said Charlotte.—*Improved Machine for Cutting Pipe*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—In combination with the cutter, the two revolving disks D E, with the series of holes 1 2 3 4 5, the holes of one disk being furnished with loose sleeves *c* or rings, for the purpose of adapting the machine to the cutting off of pipes of various sizes, as set forth.



No. 20,407.—AURY G. COES, of Worcester, Mass.—*Improved Pipe Tongs*.—Patent dated June 1, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim making the movable claw or jaw of a wrench adjustable, with respect to the stationary claw or jaw, by means of a screw on the shank of the latter, and a screw nut working on such screw, and so connected with the slide carrying the movable jaw as when rotated to cause the movable jaw to change position relatively to the stationary claw.

Nor do I claim pincers as ordinarily constructed, that is to say, in which each jaw or nipper forms part of one of two levers which cross one another and turn on a common pin or fulcrum, whether the said fulcrum be movable in a slot in one of the levers or not.

But I *claim* my improved pipe tongs or wrench, as made not only with its movable jaw D, connected with a slider C, embracing the shank A of the stationary jaw B, and made adjustable thereon by a nut E, and screw  $\alpha$ , as described, but with a lever F, separate from the movable jaw D, and applied thereto and to the slider C, substantially in manner as specified.

No. 22,175.—JAMES R. BROWN, of Boston, Mass.—*Improved Pipe Tongs*.—Patent dated November 30, 1858.—A is the hooked jaw lever; B is the toothed lever, both being crossed on one another and connected together by a fulcrum pin C, which passes through both and particularly through a slot  $\alpha$  formed in the jaw lever.

The screw D is arranged in line with the slot  $\alpha$ , and screws in and through the lever A, and enters the slot, as shown in the engravings.

The inventor says: What I *claim* in the crossed lever jaw pipe tongs is, the described arrangement and application of the adjusting screw with reference to the fulcrum pin, the slot and the hooked jaw lever, the same being for the purpose as specified.

No. 21,525.—CHESTER W. SYKES, of New York, N. Y.—*Improvement in Making Pliers*.—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Connecting the jaws C of the pliers or pincers to the portions of the handles A, above and below the centre pin or fulcrum B, upon which they move by pins D D<sup>1</sup>, at points diagonal with each other, and at equal distances therefrom, the lower set of the said pins D<sup>1</sup>, being inserted and allowed to traverse (with the opening and closing of the handles and jaws) in longitudinal slots E, in the lower parts of the said jaws C, substantially in the manner and for the purpose described.

No. 20,460.—HENRY WILKINSON, of Collinsville, Conn.—*Improvement in the Manufacture of Pliers*.—Patent dated June 1, 1858.—The two patterns of half parts of pliers for casting are first prepared, figs. 2 and 3. The half A is then moulded and cast into the nippers c c, which, when cast and cold, is prepared and placed in the sand or mould, where the impression is already made for the other half, fig. 2 B, to be placed as



shown by the dotted lines fig. 3. The metal is then poured in and runs all over the tenon and the nipples, and forms the half B.

The inventor says: I do not claim the nipple joint or its adoption.

But I *claim* the mode of constructing malleable iron pliers by casting one half over the other in the manner described.

No. 19,843.—JOHN P. GROVE and JOHN GROVE, of Montour county, Pennsylvania.—*Improvement in Puddling Furnaces*.—Patent dated April 6, 1858.—On the under side of the plate M M<sup>1</sup> a circular plate P P<sup>1</sup> is cast. Around the circumference of this plate is a flange of about eight or ten inches vertical projection. Immediately under plate P P<sup>1</sup> is a circular groove or trough Q Q<sup>1</sup> into which the flange on the plate fits. The flange revolves in the trough or groove. The trough is filled and kept full of water for maintaining an air-tight joint at the intersection of the plate and trough. A bevel wheel R R is placed on the lower part of the vertical shaft, and another bevel wheel gears into it. This second wheel is connected with the main driving power by any convenient gearing. By this construction the bottom can be made to revolve constantly while the puddling is going on.

The inventors say: We do not claim the invention of revolving bottoms for puddling furnaces.

But we do *claim*, first, the employment of a revolving bottom for a puddling furnace, arranged with water tubes for cooling it, and with the peculiar air-tight joint described, the whole arranged and operating substantially as described.

Second. The employment in a puddling furnace of a revolving tool, arranged and operating in the manner and for the purpose substantially as described.

No. 20,743.—JOHN THORNDIKE, of North Weare, New Hampshire.—*Improved Brad Punch*.—Patent dated June 29, 1858.—The object of this invention is to facilitate the driving of brads and consequently expedite the labor of “sticking,” or attaching moulding or beading to various articles of joinery, cabinet, and similar work.

*Claim*.—The cylinder A C, provided with the rod B, punch A, and rod F, the rod B having a spiral spring D placed around it, the above parts being used in connexion with the reserve box E, placed relatively with the cylinder C, and the whole arranged to operate as and for the purpose set forth.

No. 20,516.—DAVID S. SHERMAN, of Lowell, Massachusetts.—*Improved Punching Machine*.—Patent dated June 8, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the device shown in the patent of R. H. Cole, dated June 3, 1856.

But I *claim* the manner of punching a nut, washer, or other article from plate or bars, by forcing it half way out (or more or less) in one direction into a die, and then forcing it entirely out in the opposite direction into another die, for the purpose of making the outside edges of the nut perfectly square and free from a sharp or burr edge, substantially as described.



No. 20,157.—WILLIAM H. HOWLAND, of Sacramento, California.—*Improvement in Quartz Crushers*.—Patent dated May 4, 1858.—This machine is designed for crushing auriferous quartz, and consists of a series of pestles J placed within an annular mortar A and around a feeding spout, the pestles being operated by a horizontal double inclined cam G, which acts against circular disks e attached to the pestle rods, so that the pestles will be rotated as they are raised by the cam. It also consists in a screen and pulp trough N, for the purpose of better separating the crushed materials.

The inventor says: I do not claim broadly the raising of a pestle or weight by having a horizontal cam acting upon a pulley or circular disk on its end or shaft, for this is a device that has been previously used for analogous purposes, for operating rock drills, &c.

But I *claim*, first, the arrangement and combination of the annular mortar A and pestles J, substantially as and for the purposes set forth.

Second. Having an annular feeding chamber between the upright C and the inner surface of the cylinder L, arranged substantially as and for the purposes set forth.

No. 21,248.—A. J. DOOLITTLE, of Nevada township, California.—*Improvement in Quartz Crushers*.—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Arranging the stampers E of a quartz crusher in such a manner that they are guided in their up and down motion by two springs D D which at the same time serve to increase the force of the blow, in combination with pans G, which are placed loosely under the stampers, so that they are free to rotate under the action of the blows, and which have openings in their sides, the size of which is different for different pans and depends upon the relative coarseness of the quartz, so that the finer parts of the quartz escape and the coarser ones are continually exposed to the full force of the blows, the whole being arranged substantially as set forth.

No. 20,685.—PHILOS B. TYLER and WILLIAM JONES, of Springfield, Massachusetts, and BENJAMIN LATHROP, of Sandusky, Ohio, assignors to PHILOS B. TYLER, aforesaid.—*Improved Riveting Machine*.—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The employment of a pean as described, shaped to the configuration of the head of the rivet, and operated in the manner and for the purpose set forth, by which a rivet-head is formed by a succession of light blows around the circle.

No. 19,963.—JOHN A. BAILEY, of Boston, Massachusetts, assignor to JAMES HORNER and JAMES LUDLUM, of New York, New York.—*Improvement in Rolling-Mills*.—Patent dated April 13, 1858.—This invention relates to the application of eccentrics to the journals of one roller of the pair or set employed in the rolling-mill, in such a manner as to effect the rolling of articles of a more or less taper form, as file-blanks or articles of parallel form, as may be desired.

The inventor says: I do not claim, broadly, the alternate raising or



lowering of one or more of the rollers in rolling-mills, for the purpose of producing wedge-shape work, for I am aware that it is common to place the ends of rollers in sliding frames, and to depress or elevate the latter by separate cams.

But I *claim* the application of eccentrics C D to the journals *a* of rolling-mill rollers, in the manner and for the purposes substantially as shown and described.

No. 20,702.—GILES EDWARDS, of Johnstown, Pennsylvania.—*Improvement in Rolling Railway Bars*.—Patent dated June 29, 1858.—The nature of this invention consists in forming the “pile” A by arranging one series of rails in a line with their heads up; another series between the first series, with their heads down; and a third series with their bases down and resting upon the second series, and topping off the third series with a single rail, which is inverted.

*Claim*.—The manner shown and described of arranging or disposing old rails, in forming a “pile” for the purpose set forth.

No. 20,901.—JOHN H. SNYDER, of Troy, New York.—*Improvement in Rolling Railway Chairs*.—Patent dated July 13, 1858.—In each chair the lip and flange, or the two lips, extend the whole length of the chair, and the bottom of each chair projects out on both sides, as at *c c*, beyond the bases of the lip and flange, or the two lips, throughout the whole length.

*Claim* —Forming or turning the tip or lips A of the chairs upon the collar or collars O of a roller E, by means of another roller D, substantially as set forth.

No. 21,666.—JOHN FRITZ, of Johnstown, Pennsylvania.—*Improvement in Rolling Railway Iron*.—Patent dated October 5, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: What I *claim* is the so arranging of “three high” rolls for railroad rails, bars, or beams, as that said rails, bars, or beams may be rolled or reduced as they pass both forward and back, and so that each succeeding pass shall roll down the fire formed at the preceding pass, and avoid any necessity of turning the bar as heretofore done, substantially as described.

I also claim, in combination with the top roll of the series, or with any roll of a series which performs its duty, the yielding clearer or guide, or its equivalent, for preventing the bar, rail, or beam from winding on said roll.

No. 20,736.—THEODORE SHARTS, of Albany, New York.—*Improvement in Fire and Burglar-Proof Safes*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—A fire and burglar proof sectional cast-iron safe, which has the junction between its sections accomplished by means of tongues and grooves *g h i j f e*, and maintained by means of screw-rods E E, which have their ends entirely hid from sight and inaccessible to



burglars when the safe is finished, by flowing melted metal *p p*, over and around the same, as set forth.

No. 21,427.—LEWIS LILLIE, of Troy, New York.—*Improved Iron Safe*.—Patent dated September 7, 1858.—The nature of this invention consists in making chilled cast iron safes with a wrought iron jamb cast therein, for the purpose of receiving and sloping the door to the same, and rendering it more strong against burglars. It also consists in making a frame work of wrought iron bars perforated with holes for the door, which wrought iron bars cross each other at right angles and extend to the entire edge of the said door and shut against the wrought iron jamb, for the purpose of preventing burglars from breaking away the immediate edge of said door, thereby effecting an entrance to the inner part of the safe.

*Claim*.—The mode of forming the corners of a safe with anchors *h h h h*; also the jamb *E*, as and for the purposes described and set forth.

No. 20,544.—STEPHEN R. BROWN, of East Kingston, New Hampshire.—*Improved Sash Holder*.—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim a lever bearer and a spring for holding a sash in its frame, or to operate as a sash holder.

But I *claim* applying the spring *D* so as to be capable of being slid or adjusted lengthwise on its abutment, and so as to bear against the lever bearer in whatever position the spring may be set, the same being for the object or purposes as specified.

No. 20,822.—ELIPHALET S. SCRIPTURE, of New Haven, Connecticut.—*Improved Sash Holder*.—Patent dated July 6, 1858.—This invention consists in novel means employed—a harmless yet powerful elastic pressure against a window sash, or other sliding implement, whereby they may be stopped or retained at any definite place or position in a manner that will insure their remaining there under a great amount of jar or vibration, which effect is produced by a very slight application of power applied.

The inventor says: I do not claim in the combination of my improvement, as described, either a spiral grooved shaft or a two part tube or shell, the same having been described by me in my window fastener or lock, patent of March the 9th, the present year.

Neither do I claim the tracer *G*.

But I *claim* the oscillating swivel cup *D*, in combination with an elastic buffer, all being arranged and operated substantially in the manner and for the purposes set forth.

No. 21,483.—A. H. BURDINE, of Chulahoma, Mississippi.—*Improved Saw Filer*.—Patent dated September 14, 1858.—The nature of this invention consists, first, in a file constructed spirally on a revolving axis so that a space exists between the two ends of the spiral or screw thread constituting the file. This construction of file serving the



double office of filing and feeding the saw at one and the same time, in a very regular and perfect manner, thus rendering saw filing machines quite simple.

It consists, second, in the combination of one or two of the above specified files with two conical rotating files in a machine of the character specified for the special purpose of filing old cotton gin saws :

The inventor says: I *claim*, first, a file F, constructed spirally on a revolving axis D so that a space *i* exists between the two ends of the spiral or screw thread constituting the file, substantially as and for the purposes set forth.

Second, the combination of one or two of the above specified files F with two conical rotating files G G in a machine of the character specified, substantially as and for the purposes set forth.

No. 20,945.—HEMAN HOW, of Georgetown, Massachusetts.—*Improved Saw-Filing Machine*.—Patent dated July 20, 1858.—This machine operates as follows: The operator first draws the slides C C<sup>1</sup> entirely out of the table A A, and fastens the saw between them by means of the screws alluded to above. He then replaces the slides so that the first tooth of the saw shall be under the file. Having done this he turns the crank shaft P by means of the handle Q, which will obviously cause the file to reciprocate over the saw, bearing down as it files and rising up as it passes back. When one cut is finished the operator, by means of the handle *f*, moves the saw along the width of a tooth, and so on until all are filed.

*Claim*.—The crank shaft P, operating as set forth, in combination with the slotted upright or moving frame J, the flat spring S, and the round metallic springs L L, substantially as described and for the objects specified.

No. 19,265.—NATHANIEL F. STONE and WILEY C. WARD, of Menard county, Illinois.—*Improved Saw Gummer*.—Patent dated February 2, 1858.—The nature of this invention will be understood by reference to the claim and engraving.

The inventors say: We *claim* so combining the levers, screw clamp, burr, and clamping disks in one machine, so that the operator may keep the burr up to the saw plate whilst the apparatus is clamped thereto, as set forth and explained.

No. 19,835.—M. ERNSBERGER, of Bremen, Ohio.—*Improved Saw Gummer*.—Patent dated April 6, 1858.—This invention consists in the employment of a stock provided with set screws for clamping it to the saw, in connexion with a burr cutter applied to the stock in such a way that the same may be properly guided or held in proper position while in operation, and also fed to its work with the greatest facility; the whole forming a simple and efficient instrument well adapted and more especially designed for gumming circular saws.

The inventor says: I do not claim, separately, the burr or cutter *e*, for that has been previously used for analogous purposes.

But I *claim* the stock A, provided with the screws *d*, or their equivalents, and also provided with the tube B, collar C, pin *g*, and shaft D,



with cutter *e*, formed on it, the whole being combined and arranged substantially as and for the purpose set forth.

No. 21,729.—HARVEY R. WOLFE, of Consolation, N. Y., assignor to Himself and DAVID STAPLES and W. H. WATSON, of said Consolation. — *Improved Saw Gummer* — Patent dated October 5, 1858.—This invention consists in the use of an adjustable rotating grindstone and saw carriage, whereby circular saws may be gummed with great facility by any person of ordinary ability, but little skill being required to manipulate or manage the device.

*Claim.*—The arrangement and combination of the stone B, adjustable beams D, screws *b*, slots *c*, and carriage D, as and for the purpose set forth and shown.

No. 21,935.—NELSON BARLOW, of New York, New York.—*Improved Saw Gummer*.—Patent dated November 2, 1858.—The tool being placed on the saw and adjusted in the required position, the eccentric arm D is turned upward, standing in line with lever C, and the clamp is thus fastened; the levers are then grasped or enclosed by the left hand, as the arm D is fixed relatively to the other it follows that as the crank is put in motion (by the right hand) and the left hand is closed, compressing them towards each other, the cutter G is fed up against the saw under the perfect control of the operator.

In all changes of position the rests E F *b* perform an important part: in the first place, in preventing the tool from shifting by any accident, and, secondly, that each tooth may be gauged and conform exactly throughout the series.

*Claim.*—The described arrangement of levers C and D, rests E and F, in combination with the milling cutter and clamp, all substantially as set forth.

No. 22,260.—J. P. VAN VLECK, of Cooksville, Wisconsin.—*Improvement in Saw-Sets*.—Patent dated December 7, 1858.—This invention consists in the employment or use of a spring-hammer operated by a treadle and used in connexion with an anvil, or bed and gauges; the whole being arranged so that saws may be set rapidly and in a perfect manner.

*Claim* —The hammer head E, operated from the treadle H through the medium of the bar I, springs D L, and arm J, in connexion with the anvil F and gauge G *d*, the whole being arranged substantially as and for the purpose set forth.

No. 22,256.—EDWARD MARSHALL, of New York, New York.—*Improved Saw-Set*.—Patent dated December 7, 1858.—The nature of this invention consists in the employment of two or more claws, one of which at least shall hold the saw, while the other shall bend or set the teeth.

*Claim.*—The described method of setting saws whereby the saw is firmly clamped and held in the slot *i* by means of claws *a a*, while the tooth is being bent or set, the saw being alternately clamped and released as the teeth are successively set, as is fully described.



No. 20,933.—A. H. BURDINE, of Chulahoma, Mississippi.—*Improved Machine for Sharpening Gin-Saws*.—Patent dated July 20, 1858.—This machine is designed for sharpening old cotton-gin saws without the necessity of removing them from the frame. The machine is placed upon the saw and feeds it by its own teeth. The saw teeth are sharpened with a bevel on each side towards the point, and a whole gin of saws can be sharpened in a few hours.

The inventor says: I *claim*, 1st, the arrangement of the adjustable feeding pawl L L, spring-file frames *ij*, and slotted or jointed adjustable frame C D *b a*, substantially as and for the purpose set forth.

2d. The particular arrangement specified of the self-clamping and self-sustaining frame C *a b*, in combination with the pawl L, for the particular purpose of feeding old circular gin-saws while on the shaft and in the grain frame, substantially as set forth.

3d. The particular manner shown of arranging the clamping part C of the frame on the upper part D of the frame, for the purpose set forth.

No. 19,244.—HOSEA O. ELMER, of Mexico, New York.—*Improvement in Gumming and Jointing Saws*.—Patent dated February 2, 1858.—This improvement consists in so constructing the bed or frame of the machine, and providing it with clamps, that it may be readily attached to the saw and adjusted in the proper positions, and applied with equal facility to either reciprocating or circular saws.

The inventor says: I do not claim the rotary bar cutter G placed on a rectilinearly moving frame or carriage, for such device has been previously used.

But I *claim* constructing the bed or frame A of two parallel bars *a a*<sup>1</sup>, connected at their outer or front ends by a bolt *b*, and having a suitable space allowed between them, when said bed thus constructed is used in connexion with the guard or guide M attached to its inner ends, and arranged as shown, for the purpose of preventing the teeth of the saw being injured by coming in contact with the plates I I, as the bed is adjusted upon or to the saw, as described.

No. 22,040.—CALVIN TABOR and BYRON D. TABOR, of Ischua, New York.—*Improved Machine for Filing Saws*.—Patent dated November 9, 1858.—A is a horizontal frame of wood, upon which are erected the posts V V, and also the cast iron frame I. B is a circular platform, filling the space between the posts, and fastened to the frame; 7 is a block turning on a pivot 6 and inside of the circular platform, and carrying with it the lower carriage D. The upper carriage H is composed of a block, in which are inserted the upright standards I I, which support the jaws J J. The carriage H runs in grooves in the sides of the carriage D D, and is moved backward and forward by the screw F working in the nut.

*Claim*.—The use of the file carrier and pressure frame, as set forth, in connexion with the carriage, clamping jaws, and revolving platform, when constructed and operated as specified.



No. 20,330.—WILLIAM CLEMON, of East Woburn, Massachusetts.—*Improvement in Machine for Grinding Saws*.—Patent dated May 25, 1858.—A is the main frame of the machine; B is the grind stone; C the roll which holds the saw to the stone; *a* is the flat pivot on which the saw *b* revolves; D D are ways attached to the main framing; E is the sliding plate which carries the pivot *a* on which the saw revolves.

*Claim*.—The employment of a revolving friction clamp, applied to the saw in the manner substantially as described, to receive rotary motion from the saw, and to control the revolution of the saw by the momentum it acquires by such rotary motion, as fully explained.

No. 22,367.—HENRY HAVELL, of Newark, N. J.—*Improvement in the Manufacture of Scissors*.—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim, generally, the soldering of a steel plate on to malleable iron by means of brass or other metal.

But I *claim* the forming of the blades of scissors or shears by means of the use of the intermediate plate *b*, or by soldering or brazing the malleable cast iron and steel together, substantially in the manner and for the purpose described.

I also claim in the manufacturing of scissors or shears the use of the die, as before mentioned, and the striking together and into the required line and shape the component parts of the blades, substantially in the manner and for the purpose described.

No. 21,531.—THOMAS WHITAKER, of Cincinnati, Ohio.—*Improved Screw Cutter*.—Patent dated September 14, 1858.—This improvement relates to that class of screw cutting machines in which the bolt revolves and the die head is drawn on by the action of the threads of the die upon the bolt, while provision is made for the instantaneous separation of the dies while the machine is in motion, and the closing of them again on the bolt at the will of the operator; and it consists in a simple and compact arrangement of parts, whereby the dies are completely under the control of the operator, and may be promptly replaced by others when it is desired to do so.

The inventor says: I am aware that the slot *h*, the adjusting pin I, the hook I, and the lever G, have been previously used in a similar connexion for regulating and adjusting the cutters of a die head, and I therefore do not claim them as my invention.

But I *claim* the combination of the shaft E, the sheaves F F<sup>1</sup>, the yokes K K<sup>1</sup>, and the guides C C, with the dies D D, when arranged substantially as described, for the purposes set forth.

20,168.—RICHARD NUTTALL and JOHN KIRKPATRICK, of Alleghany, Pennsylvania.—*Improved Chuck for Screw Cutting*.—Patent dated May 4, 1858.—The nature of this invention consists in an arrangement for moving the cutting dies backward and forward in their chambers by means of a troll plate, having three scroll formed grooves and die seats with segments fitted to said grooves, and also in an arrangement for holding the cutting dies in their chambers, and in manner of re-



lieving them from the upward or outward pressure of troll plate and die seats.

The inventors say: We *claim*, first, the projection *j* on the movable die seats, and the transverse slot or notch *k*, in the removable cutting dies, the one being adapted to the other as described and for the purpose set forth.

Second. The use of the troll plate when constructed as specified, and operating in connexion with the die seat and die as set forth.

No. 19,752.—RICHARD H. COLE, of St. Louis, Missouri.—*Improved Screw Cutting Machine*.—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* arranging a set of vibrating chasers *a a a* in a revolving chuck, in such a manner that the said chasers may be opened and shut while the chuck is in motion, and of so constructing and adjusting the said chasers that they shall turn the bolt blank to a given size, and chase the thread on it in one and the same operation, substantially as shown on the drawing, and as described in this instrument.

And I also claim the combination of the two plates *N N* and the cam *P* with the cross head *O*, substantially as shown and described, for the purpose specified.

And I also claim combining the turning lathe with the screw-cutting machine, whereby the heads of the bolts are turned at the same time the chasers cut the thread on their points, in the manner set forth.

And I also claim combining a universal chuck in the opposite end of the same shaft on which the chasing chuck is fixed, whereby the nut can be tapped at the same time the thread is cut on the bolt, and with the same power and motion, substantially as specified.

No. 20,619.—OLIVER BOND, of Buffalo, New York.—*Improved Handle for Screw Drivers*.—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I make no claim to ratchet wheels or cog gearing or spring, when used in connexion with tool handles.

But I *claim* the ratchet ferrules *C* and *D* when attached to the handles *A* and *B*, and used in combination, the same being protected by the surrounding band ferrule *E*, as set forth.

No. 19,162.—G. H. TALBOT, of Boston, Massachusetts.—*Improved Ratchet Movement for Screw Drivers*.—Patent dated January 19, 1858.—This invention is a combination of two pairs of rag wheels *c c*<sup>1</sup> or flat circular ratchets, with reversing gear to engage either pair and disengage the other, so that a rotary motion can be given to the tool by turning the handle *B* back and forth in opposite directions.

*Claim*.—The combination with sliding rag wheels *c c*<sup>1</sup> of a sliding piece *i*, having claws *h h*, substantially as and for the purposes described.

No. 19,805.—JAMES M. WHITING, of New Bedford, Massachusetts, and GEORGE F. WILSON, of Providence, Rhode Island.—*Improvement*



*in Wood Screws.*—Patent dated March 30, 1858.—The nature of this invention consists in making the upper side of the threads of wood screws deeper than the under side, by taking out more stock from the core or body of the screw on the upper than on the under side of the thread, which greatly increases the hold of the screw on the wood into which it is driven.

*Claim.*—The making of wood screws with the upper side of the thread of greater depth than the under side of the thread, substantially as described.

No. 21,864.—GEORGE W. DANIELS, of Waltham, Massachusetts, assignor to Himself and ABRAHAM FULLER, of said Waltham.—*Improved Lathe for Cutting Screws from Wire.*—Patent dated October 19, 1858.—The lathe arbor A is to be made tubular throughout its entire length, the bore of the tube at its front end being enlarged in a tapering or conical form, as shown at *a a*. This bore is to contain a hollow spindle or tube B, whose front end terminates in expanding jaws *b*, formed by a conic frustum sawed axially in two directions, as shown at *c d*. This frustum extends to the conical mouth *a a* of the arbor. On that part of the spindle B which extends beyond the rear end of the arbor a male screw *c*<sup>1</sup> is to be cut, the screw being made to extend a short distance within the bore of the arbor. On this screw a hand nut or wheel *d*<sup>1</sup> is screwed and against the rear end of the arbor.

*Claim.*—The inventor says: I am aware that holders for tool-holders have been made with a holding and centering apparatus of the kind substantially like that described as applied to the arbor of a lathe, with the exception that the bore of their spindle did not extend through such, therefore I do not claim the said holding and centering apparatus either alone or in connexion with a tool handle. I am also aware that a lathe arbor has had a passage extended through it longitudinally and axially, and that such passage has opened into a hollow hub or “boss” containing two metallic bearings, one of which was forced towards the other by a screw arranged transversely on the arbor, the whole being simply for clamping a round shaft on a lathe in order that a concavity might be turned in one end of it. But such devices could only center or bring into one straight line, on the axis of the arbor, a shaft of but one diameter; therefore I do not claim this latter contrivance, it being shown in Henry A. Case’s rejected application. My improved lathe, with reference to a round rod extending through the arbor, can perform a function not incident to the lathe of the said case.

I claim combining with a lathe arbor devices made and applied to it substantially as described, so as to enable rods varying in diameter to be securely clamped and centered in the arbor, and to extend entirely through it in manner as specified.

No. 20,036.—PHILIP CHAPIN, of Baltimore, Maryland.—*Improved Machine for Cutting Screws.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I claim, first, the employment of a cutter carriage D E, constructed substantially as described, with two branches, one



of which  $z$  is movable, and so constructed, mounted, and arranged as to embrace the prepared material and the driving screw  $F$  at the same time and by the same movement.

Second. The combination of the carriage  $D E$ , the driving screw  $F$ , and the adjustable gear  $K I G$ , for the purpose of cutting threads in wooden screws, as described.

Third. The employment of the hollow binders  $d$ , for the purpose of securing the cutters  $s i$  in proper positions for the forming of wooden screws.

No. 20,789.—IRA GRIGGS, of Utica, New York, assignor to THE UTICA SCREW MANUFACTURING COMPANY, of Utica aforesaid.—*Improved Machine for Turning the Heads and for Nicking Screws*.—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the arrangement of a series of rotating blank holders in bearings, at equal distances apart, in and at equal distances from the centre of a stock, which has an intermittent rotary motion, for the purpose of presenting each of the series in succession to the feed apparatus, to the cutter for turning the heads, to the saw for cutting the notches, and to a cutter for finishing the heads after the notches have been cut, substantially as described.

Second. The relative arrangement of the driving shaft  $D D$ , the blank holders and their rotating stock  $C$ , the turning cutters, and the saw for cutting the notches, substantially as described, whereby, when the blank holders severally arrive opposite the saw, the driving belt, which gives them the rotary motion on their axis to effect the turning, is inoperative upon them.

Third. The series of movable rests  $s t v$ , applied and operating substantially as described, to support the screw blanks and hold them steady during the operation of the cutters and saw.

Fourth. Combining the holding dies  $b b$  with their operating levers  $e e$ , by making the said dies detached from their levers and fitting them to slide within guides in the holder, and applying adjusting screws to the levers at their bearing upon the dies, substantially as specified.

Fifth. Applying the discharging punches of the blank holders with springs, to retract them within the holders after the discharge of the blanks, and in such manner that the plungers, after opening the holding dies or jaws, will drive them forward to expel the blanks, substantially as set forth.

No. 21,641.—HENRY L. KENDALL and HOMER P. HUNT, of Providence, Rhode Island, assignors to THE NEW ENGLAND SCREW COMPANY, of said Providence.—*Improvement in Cutting Threads of Wood Screws*.—Patent dated September 28, 1858.—This invention consists in cutting the thread of screws by means of two edges upon the chasing tool or tools, which edges are caused by suitable mechanism to operate successively upon the screw, the one edge having a form adapted to cutting the thread upon the body of the screw between the sloping extremities of the core, and the other cutting edge having a form



adapted to cutting the thread upon the sloping extremities of the core.

*Claim.*—The cutting of the threads of wood screws by means of chasing tools whose cutting edges have profiles which are respectively counterparts of the body and sloping portions of the screws, and which are caused to act in succession upon the screw blank.

No. 21,438.—SAMUEL D. NELSON, of Pittsburgh, Pennsylvania.—*Improvement in Scythe Blades.*—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I claim constructing grass and cradle scythes by starting the web of the scythe from one edge of the back, making the back concave on the upper, and convexed on the lower side, leaving the heaviest and thickest part of back on the centre and to the outside of the convexed side of the back, thereby making the scythe stiffer and stronger, as described and represented.

No. 19,524.—HARVEY WATERS, of Northbridge, Massachusetts.—*Improvement in the Manufacture of Scythes.*—Patent dated March 2, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I wish it to be distinctly understood that I do not make any claim to such mode of procedure, or to the arrangement of dies specified under the present application.

Nor do I wish to be understood as limiting my claim of invention to the said new manufacture of cutting instrument known under the term scythes, as the peculiar edge thus produced is applicable to other cutting instruments.

What I *claim* is the new manufacture of cutting instruments, substantially such as described, having the metal forming the cutting edge in the condition resulting from the previous crinkling or corrugating of the metal at right angles or nearly so, with the line of the intended cutting edge, and then flattening it by a swaging, operating in such manner that the crinkles or corrugations shall not be straightened out by simply bending, as described.

No. 19,152.—LUTHER E. PORTER, of Lake Mills, Wisconsin.—*Improved Double Seaming Machine.*—Patent dated January 19, 1858.—This invention consists in an arrangement of frames which contain the roller, so as to close the seam or joints by which a double seam or locked joint is closed, the work being speedily done.

The inventor says: I do not claim broadly, the employment or use of adjustable rollers for seaming or closing the joints of sheet metal ware, for rollers variously arranged are in common use for such purpose.

But I *claim* the frames I K O, provided respectively with the rollers J N Q, in connexion with the segment C, the whole being arranged as shown, so that the rollers may be readily adjusted, and the manipulation of the machine generally rendered comparatively easy.

No. 21,546.—JOSEPH A. BRADEN, of La Grange, Ohio.—*Improvement in Shears.*—Patent dated September 21, 1858.—This invention



consists in making the blades of scissors or shears with their transverse sections of the form of equilateral triangles, so that each presents three cutting edges, and fitting them to the handles in such a manner that they are capable of being turned therein when desired to bring a new pair of cutting edges into an operative position when one pair has been worn out or blunted.

*Claim.*—Making blades of triangular form in their transverse sections and fitting them to the handles so as to be capable of being turned therein to present three different pairs of edges in an operative position, substantially as described.

No. 20,028.—DANIEL NEWTON, of Southington, Connecticut.—*Improved Shears for Cutting Sheet Metal.*—Patent dated November 9, 1858.—The nature of this invention consists in the application of one or more of the following improvements to shears for the circular cutting of sheet metal: 1st, cutters with holes through them revolving on a rod or axle; 2d, a spring to hold said cutters together; 3d, a screw to hold the metal; 4th, a spring gauge on which the metal rests when placed in the machine.

*Claim.*—The application to circular shears of two rods with a revolving cutter on each rod sliding either way to adjust the size of the circle.

No. 21,319.—WILLIAM S. BUTLER, of Rocky Hill, Connecticut.—*Improvement in Manufacturing Shears.*—Patent dated August 31, 1858.—The process of producing the temper in this invention is as follows: After the pattern is drawn from the mould, particular pains is taken to wet well the sand on the surface and near the cutting edge, as shown at A<sup>3</sup>, about one-eighth or one-quarter inch wide, so that when the molten iron is poured into the mould it will chill that portion thereof so much as to give it a sufficient hardness.

*Claim.*—As a new article of manufacture, a pair of shears made of cast-iron, with their cutting edges A<sup>3</sup> hardened or tempered in the manner described.

No. 21,368.—ISAAC ROGERS, of Owego, New York.—*Improvement in Shutter Operators.*—Patent dated August 31, 1858.—This invention relates to a peculiar contrivance for effecting the opening and closing of the blinds from the inside of a house.

*Claim.*—The described apparatus for opening and closing window blinds, viz: the lever *f*, rod *d*, crank *c*, and slide *o*, the whole being arranged on the shutter and window frame, as set forth, combined and operating substantially in the manner described.

No. 20,975.—HENRY J. BEHRENS, of New York, New York, assignor to CHARLES S. POMEROY, of New York aforesaid.—*Improved Soldering-Iron.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the use of a hollow soldering-iron, so made for the purpose of receiving a red-hot piece of metal to



increase or continue the heat of the surface for a longer space of time, for such contrivance is not new.

But I *claim* the use of a hollow soldering-iron, containing solder, with or without a valve to regulate the flow thereof, as substantially set forth.

I also claim the combination of a hollow soldering-iron containing solder, with an opening *c* through which the solder may pass as required in the process of soldering, its delivery being automatic to its use.

No. 21,972.—E. MANLEY, of Marion, New York.—*Improved Machine for Soldering*.—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Arranging within and in the desired relation to the furnace A mounted on wheels G, and constructed as set forth, an inclined copper bar or soldering tool I, having notches on its lower surface and a wedge or key J above, for retaining it with the required degree of heat, in combination with the inclined conducting tube L and hinged box M, and its attachments divided into two compartments for the solder scraps and resin, the whole being constructed and operating substantially as described.

No. 19,452.—LEANDER SHEARER, of Duncannon, Pennsylvania.—*Improved Spike Machine*.—Patent dated February 23, 1858.—L is the main lever, one end of which is pivoted at M to the post M<sup>1</sup>, the other end being forked to receive the cam K. Upon the lever L is a die-stock E, in which is arranged the upper die S<sup>1</sup>, adjustable by means of set screws 3<sup>1</sup> 3<sup>1</sup>. G is the header-lever, which is moved forward toward the dies by the cam H and brought back by the spring J. D is the knife or cutter, which operates against the edge *a* of the feed-rest D<sup>1</sup>, and is attached to the frame R.

The inventor says: I am aware that machines for making spikes have been so constructed as to cut and point the spike simultaneously by the compression of the dies, and also that machines have been so made as to point the spike by the compression of dies while the bar was cut by a knife at the heading end, and do not wish to be understood as claiming any such devices.

But I *claim* the application of the cutter D, acting against the cutting edge *a* of the feed-rest D<sup>1</sup>, and the dies S and S<sup>1</sup>, operating as set forth, in combination with the reciprocating carriage C, vibrating lever L, and header lever G with its header F, the whole constructed and operating substantially as described.

No. 20,076.—MICHAEL LOUGHRAM, of Pittsburgh, Pennsylvania.—*Improved Spike Machine*.—Patent dated April 27, 1858.—This invention consists in the use of dies, working as eccentric cams, so combined and arranged as to form a spike at one operation at every single revolution of the dies.

*Claim*.—The employment of dies *i k* and *l*, constructed, arranged, and operated as specified, working on separate shafts, and forming spikes at a single revolution.



No. 22,060.—JOHN P. BRINKERHOFF, of Brooklyn, N. Y.—*Improved Machine for Making Spoons*.—Patent dated November 16, 1858.—A is a framing on the upper part of which a bed plate C is placed. To the bed plate C, near one end, two upright plates *a a* are secured, the upper ends of the plates *a* being connected by a cross plate *b*. Between the upper parts of the plates *a a*, a roller or shaft D is placed, and on this shaft a projecting surface E is formed, said surface corresponding in form to the article to be manufactured, and having a circumferential position on the roller, the projection serving as a male die. The edges or corners of the die E are made as sharp or angular as may be, to form good cutting edges.

*Claim*.—The arrangement and combination of the rolling die E, die G, bolster F, opening *h*, and bar H, as and for the purposes shown and described.

No. 22,441.—THOMAS J. MAYALL, of Roxbury, Mass.—*Improved Door Spring*.—Patent dated December 28, 1858.—A is the door; B is the spring, which is a cylinder of India rubber, or solid and vulcanized in the form it is ultimately to have. The ends of the spring are secured to sockets C and D, one of which is secured to the jamb and the other to the door. By turning the socket D more or less, and locking it by the catch *g*, the spring may be made to close the door with more or less force, and by turning the socket in an opposite direction, the spring may be caused to hold open the door.

*Claim*.—The described India rubber torsion door spring, operating as described.

No. 20,338.—EDWARD DOEN, of New Britain, Conn.—*Improved Window Spring*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim any of the parts described, separately considered.

But I *claim* the combination of the independent obtuse angled lever H and direct-acting spring bolt D, arranged for action together relatively to each other and the face-plate A of the casting, which carries both, and for connexion with the window casing as a fastener to the sash, as set forth.

No. 19,747.—BYRON BOARDMAN, of Norwich, Conn.—*Improvement in Staples for Blind-Slats*.—Patent dated March 30, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that spikes, bolts, and staples, for various uses, have been cut with transverse furrows, and bearded diagonally and otherwise, for the purpose of holding with greater force when driven into wood, and that stems or shanks of fish hooks have been serrated with indentations for their greater security to a line; therefore I do not claim the cutting to produce a bearded or ragged surface or edge either to spikes, bolts, or staples, except in manner and form as described.

Nor do I claim the production of serrated indentations on the shank



of fish hooks, or any other article, except the wire staples, such as are used for the slats of window blinds and screens.

Neither do I claim the production of staples of any kind, when not pointed or serrated as described.

But I *claim* constructing wire staples (such as are used for connecting the semi-revolving slats of window blinds and screens to a rod governing their positions) by giving them a rounded edge in the direction as shown at *a c*, and an acute or sharp edge, as viewed cross-wise, as at *f h*, in combination with transverse indentations across the wire; the whole being formed by compressions between dies, substantially as described.

No. 19,804.—HORACE VAUGHN, of Providence, R. I.—*Improvement in Tempering and Hardening Steel and Iron*.—Patent dated March 30, 1858.—The claim will explain the nature of this improvement.

The inventor says: I do not claim the use of the within named substances when the same are used in a state of aqueous solution.

But I *claim* the use of a bath of chloride of sodium, with or without ferro-cyanide or bi-chromate of potash, or either of them, or of other ingredients possessing similar chemical properties combined with animal or vegetable charcoal and ground bone, when the foregoing substances are in a state of igneous fusion, combined and operating as set forth.

No. 21,948.—JOSEPH DIXON, of Jersey City, New Jersey.—*Improvement in Manufacturing Steel*.—Patent dated November 2, 1858.—The claim explains the nature of this invention.

*Claim*.—The process of making steel by heating pig or cast iron, covered or stratified by any substance which will preserve a separation of the plates or pieces of iron through the process of heating, except so far as the use of oxide of iron as a separating material by any patent referred to.

No. 21,039.—HENRY WATERMAN, of Brooklyn, New York.—*Improvement in Making Steel Rollers*.—Patent dated July 27, 1858.—The nature of this invention consists in constructing metal rolls of steel and iron, in two, three, or more pieces, so as to permit the journals to be hardened and reduced to any required temper without danger of cracking or warping, and the outer rim or surface to be hardened and shrunk on at the time of hardening, without subjecting the other portions of the rolls to the heating process, thus preserving the tube form, and surface of the rollers.

*Claim*.—Improved compound rollers, consisting of the steel shaft A, the iron cylinder B, and the steel cylinder C, forming the surface when fitted together and hardened in the manner specified.

No. 19,038.—GEORGE W. MERK, of Leavenworth, Kansas Territory.—*Improved Machine for Bending Tin*.—Patent dated January 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the two clamping bars F and G arranged at an angle to each other, with each leg of the angle hinged to the



bed, so that the apex of the angle can be raised from the bed to insert the sheets of metal, and cl sed down upon them to bend them, and raised again to remove the bent sheets, as described.

And in combination with the described clamping bars F and G, I claim the folding or bending bars H and M for bending the edges of the sheets of metal, as described.

I claim the spring gauge R, so arranged that it may be raised to gauge the sheets, and spring down, so that it may be removed.

No. 20,700 —G. W. CLOPER, of Morenci, Michigan.—*Improvement in Upsetting Tire*.—Patent dated June 29, 1858.—This invention consists in the novel arrangement of the jaws or clamps G which grasp the tire or bar to be upset, and which, owing to their novel arrangement, allow the bar while being compressed or upset to be firmly pressed down upon its bed.

The inventor says: I *claim* the jaws G attached to rods *f*, which are provided with springs *g*, and have a vertical movement, as well as a rotating one, and the inclined planes *h* in the plate below the jaws G, the above parts being used in connexion with the stationary jaws F, the jaws being applied to the ledges *b b* of the plates B D, and arranged as and for the purpose set fo th.

No. 21,327.—E. J. DODGE, of Port Washington, Wisconsin.—*Improvement in Upsetting Carriage Tire*.—Patent dated August 31, 1858.—The nature of this invention consists in arranging the anvil blocks or supports to rock on a centre, in combination with the arranging of the jaws A A<sup>1</sup> of the immediate guide or support E, to be adjusted separately or both together up and down, whereby the machine is adapted to set tire and other articles of greater or less curvature and of different thicknesses.

*Claim*.—Arranging the anvil blocks or supports to rock on a centre in the manner specified, in combination with the arranging of the jaws of the intermediate guide or support, to be adjusted separately or both together up and down, substantially as and for the purposes set forth.

No. 20,559 —IRIS HOBSON, of Stout's Grove, Illinois.—*Improvement in Reducing Wheel Tires*.—Patent dated June 15, 1858.—By having the anvil constructed of a series of spring bars K L M, instead of making it solid, it is capable of conforming to any irregularities or eccentricities of the inner circle of the tire, and thus a bearing upon all parts is obtained. And by having the moving toothed jaws O O attached to the anvil the machine is simplified and the clamping of the tire facilitated.

*Claim*.—The sliding curved anvil formed of one straight and two semi-elliptic spring bars K L M, and furnished with two holding jaws O O, in combination with two toothed stationary jaws o<sup>1</sup> o<sup>1</sup> and a vise screw I, substantially as and for the purposes set forth.

No. 19,842 —HENRY H. GILMORE, of Boston, Massachusetts.—*Improvement in Pipe Tongs*.—Patent dated April 6, 1858.—The nature



of this invention consists in a method whereby the slotted part of the tongs is so clamped to the pivot that the strain consequent upon the use of the tongs shall not separate the jaws by slipping the pivot *a* in the slotted jaw A.

*Claim.*—The combination of an inclined plane or planes, or the equivalent thereof, with the slotted jaw, for the purpose described.

No. 19,416.—JAMES GREENHALGH, jr., of Burville, Rhode Island.—*Improved Expanding Tool.*—Patent dated February 23, 1858.—D is a screw having a right hand thread on one half its length, and a left hand thread on the other half. One end of this screw D is made with a square to fit into a socket F, the stem *d* passes through the head of the stock A, and is formed with a square *e* to receive a wrench or key. The right and left handed screws are fitted with two nuts E and E<sup>1</sup>, having the external form of truncated cones. The cutters B B are confined to the cones by springs *c c*. The nuts E E<sup>1</sup> are prevented from turning in the shell by the springs *c c*.

*Claim.*—The arrangement, substantially as shown and described, of the two truncated cone-sloped nuts E E<sup>1</sup>, right and left screw D, expansion pieces B B, and springs *c c*, for the purposes set forth.

No. 22,155 —JAMES BARTON, of Cleveland, Ohio.—*Improved Tool for Cutting Key Seats in Wheels and Pulleys.*—Patent dated November 30, 1858.—The nature of this invention consists in providing a shaft with a series of square cutters which are adjustable, and using for cutting a tapering key seat a circular wedge plate.

The inventor says: I *claim*, 1st, the employment of the shaft A, provided with a series of cutters which are adjustable; the two being so arranged that by pressing them through the hole or bore of a wheel or pulley a key seat is finished parallel with the bore, as is fully set forth.

2d. The employment of a tapering circular slip or wedge between the cutter shaft and the bore of the wheel or pulley on the opposite side from the cutters while the key seat is being cut, for the purpose of cutting a tapering key seat, as is fully described.

No. 22,466.—WILLIAM WHITE, of Newark, New Jersey.—*Improvement in Making Edge Tools.*—Patent dated December 28, 1858.—The nature of this invention consists in pouring from a crucible or other vessel into a mould wrought iron or steel, or both in combination, while in a melted state, and thereby forming a whole or a part of an axe, hammer, or other article, the cavity of said mould being the shape or form of the article desired.

*Claim.*—The use of wrought iron and steel, separately or combined, while in a melted or liquid state, for the purpose of forming into shape axes and other articles without the process of forging, welding, or swaging, by the use of a mold, the cavity of which is the shape or form of the article desired, as set forth in the specification.

No. 19,606.—JOHN HENN, of New Britain, Connecticut, assignor to Himself, ANTON DANL, and LEOPOLD LANKAN, of Hartford, Connecti-



cut.—*Improvement in Attaching Tools to Handles.*—Patent dated March 9, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The arrangement and construction of the plate *w*, with projection *D*, acting against a spring in the back of a handle in such a manner that when opened it will relieve said spring to allow a knife or tool to be attached to the upper end of said handle, and when closed force the spring against the tool so as to hold the same perfectly steady in the handle, substantially as described.

No. 19,150.—CHARLES MONSON, of New Haven, Connecticut.—*Improved Gas-Tube Joint.*—Patent dated January 19, 1858.—This invention consists of a metallic tube joint with a relief-ring *C*, to prevent wearing the joint, for the purpose of rendering pendant lights moveable.

*Claim.*—The arrangement of the semi-circular tubes *g h*, in connexion with the ring *C* and central chamber *i*, constructed and operated substantially as set forth.

No. 20,529.—EDMUND JORDAN, of Waterbury, Connecticut, assignor to the BENEDICT & BURNHAM MANUFACTURING COMPANY of said Waterbury.—*Improved Maching for Finishing Soldered Tubing.*—Patent dated June 8, 1858.—This invention consists in a peculiar means employed for operating a file or cutter *c c* for the purpose of finishing off the soldered seams of tubing. It also consists in a clamp for holding the tubing while being operated upon by the file or cutter.

The inventor says: I *claim* the files or cutters *c c*, attached to a tilting stock which is fitted to a reciprocating slide *F*, and operated by means of the connecting-rod *D*, crank *C*, and stops *G G*<sup>1</sup>, substantially as and for the purpose specified.

I further claim the clamp formed of the two plates *I I* attached to the levers *H H*, which are connected to a treadle *K*, the whole being arranged to operated as and for the purpose specified.

No. 20,053.—GEORGE W. FINCH, of Gibraltar, Wisconsin.—*Improved Tuyere.*—Patent dated April 27, 1858.—This improvement consists of two hollow cylinders of cast iron. The outer cylinder *A* is stationary and is usually cast open only at one end, and to this and a cast iron cover or head *B* is fitted and secured, either by bolts, turnbuckles, or any other convenient manner. A long narrow slot *C* is cast through the side in front of the forge fire, the ends of said slot being beveled to a sharp angle, outwardly, in opposite directions, for the purpose of producing a diverging blast, and is of a length determined by the requirements of the work to be performed.

The inventor says: I do not claim separately, or in themselves considered, any of the described parts.

But I *claim* the use of two hollow cylinders *A* and *E*, in combination with the slotted opening *C*, and the outlets *a b c*, or more, if necessary, of varying forms and sizes; all arranged to operate substantially as and for the purpose set forth.



No. 22,012.—HARVEY S. BERRY, of Rutland, Vermont.—*Improved Blacksmiths' Tuyere*.—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—A tuyere revolving in a wind box supplied with wind in any ordinary way, with apertures through it, so arranged as to bring more or less of them at pleasure to bear upon the fire, and thereby diminish the fire and circumscribe the space affected by the blast, or enlarge the space and increase the fire.

No. 22,111.—BENJAMIN DIXON, of Marshall, Michigan.—*Improved Blacksmiths' Tuyere*.—Patent dated November 23, 1858.—This improvement consists of a device for regulating the width of the nozzle at the point of exit in tuyeres when surrounded by water.

*Claim*.—The mode of regulating the length of the discharging orifice in a water tuyere, by means of the oblong tapered wind chamber A (with grooves or other equivalent device in its casing) in combination with one or more of the tapered plugs P P, rods R R, and the detachable cover D, to be used for the purposes and in the manner substantially as described and set forth.

No. 19,622.—CHARLES B. CLARK, of Oriskany Falls, New York.—*Improved Vise*.—Patent dated March 16, 1858.—This invention consists in the employment of a peculiarly constructed screw and pawl, arranged and applied to the vise, whereby the movable jaw is rendered susceptible of being quickly and also firmly adjusted to the stuff to be held or clamped. There is also a peculiar arrangement of the movable jaw, whereby irregular-shaped articles, or articles of taper form, can be held or grasped by the jaws and firmly held.

The inventor says: I do not claim, broadly, a jaw arranged so that it may adjust itself parallel with one side of the taper articles to be grasped, without reference to the particular means employed for effecting the purpose, for jaws have been previously arranged to effect this purpose.

Neither do I claim, broadly, the construction of the screw-rod D, irrespective of the pawl E, and the particular adaptation of said parts, as shown and described.

But I *claim*, first, the arrangement and combination of the bar B, screw-rod D, (having a thread *c* of the peculiar form shown,) and pawl *e*, the latter serving the double purpose of a pawl and nut, substantially as and for the purposes described.

Second. Providing the bar B with recesses *e e*, so that the jaw F may adjust itself or turn upon its pivot *d*, substantially as and for the purposes set forth.

No. 19,861.—SANFORD MASON and EDWARD M. DAVIS, of Michigan City, Indiana.—*Improved Vise-Anvil for Repairing T Rails*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, the combination of the guard *c* on the lever jaw, and the groove *a* in the bed-piece, with a raising mechanism for raising up said lever jaw, substantially as described.

We also claim in combination the projection *d* on the lever jaw and



the groove *g* on the locking jaw, so that when the jaws are raised up they will open to receive the rail, and when released will catch and firmly hold themselves and the rails to the bed-piece, substantially as described.

No. 21,951.—JOSEPH S. FORD, of Philadelphia, Pennsylvania.—*Improvement in Gas-Fitters' Vise*.—Patent dated November 2, 1858.—This invention consists in the combination of an upper and lower die with two screws, each die having two or more semicircular recesses, the screws and recesses being peculiarly situated in respect to each other, and the whole being adapted to a suitable frame, in order that one or the other of the screws may serve as a fulcrum, and the upper die as a lever for transmitting, by turning the remaining screw, an increased pressure at that point where a gas-pipe is inserted between the two dies, and this with but little exertion on the part of the operator.

*Claim*.—The upper die *D* and lower die *J*, in combination with the screws *H H*<sup>1</sup>, the said dies having two or more semicircular recesses, situated in respect to each other and to the screws substantially as and for the purpose set forth.

No. 20,043.—RICHARD H. COLE, of St. Louis, Missouri.—*Improvement in Machine for Making Washers*.—Patent dated April 27, 1858.—This invention consists in an improved construction of the die or die-box, whereby the washer, after being made, is discharged through the bottom of the die or die-box.

*Claim*.—The loose bottom *u* and the spring *v*, in connexion with the die *m*, the said bottom and spring to be arranged and constructed substantially in the manner set forth, for the purpose specified.

No. 21,359.—A. PEARSALL, of Nashville, Tennessee.—*Improvement in Welding Bellows-Pipe*.—Patent dated August 31, 1858.—This invention consists in the use of an inclined mandrel, clamps, and welding roller, whereby the seams or joints of bellows-pipes or nozzles may be closed and added in an expeditious and perfect manner.

*Claim*.—The inclined mandrel *C*, clamps *E E*, and roller *I*, combined and arranged for joint operation, substantially as and for the purpose set forth.

No. 21,286.—HENRY WATERMAN, of Brooklyn, New York.—*Improvement in Tempering Wire and Steel*.—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The process of hardening steel wire, or thin steel, in long sections, being kept under a longitudinal strain by means of the wheels *D D*<sup>1</sup>, while passing through the fire in the furnace *c*, the guide *H* to conduct the wire directly from the fire into the hardening bath, in combination with such hardening bath, as specified.

No. 21,866.—SANFORD ADAMS, of Boston, Massachusetts.—*Improvement in Tools for Manufacturing Iron Riddles*.—Patent dated October 26, 1858.—*C* is the frame of the riddle, across which are placed tempo-



rary guides D. Within the notches of these guides are laid the longitudinal wires *i*, beneath these is then laid the transverse or supporting wire *h*, the two sets being bound together by a suitable wire *g* in the customary manner. In order to secure the wires *i*, *h*, and *g* so firmly that they shall not be displaced by use, and to do this without displacing the wires, the tool shown in figs. 2 and 4 is employed. Attached to its handle or shank F are the teeth *m*, and to the back of these the longer points or teeth S.

*Claim.*—The described tool for manufacturing riddles, having teeth *m* and S, operating in the manner substantially as set forth.

No. 21,635.—CHARLES A. YOUNG and SOLOMON W. YOUNG, of Providence, Rhode Island.—*Improved Machine for making Wire Springs for Furniture.*—Patent dated September 28, 1858.—The claim and engravings explain the nature of this invention.

The inventors say : We *claim* a single grooved roll D in combination with the upright rod *n*, to effect the coiling of the wire.

We also claim varying the diameter of the coils to produce a bi-conical form in the spring, by causing the roll D to approach and recede from the coiling rolls in a direct or curved line horizontally, substantially as specified.

No. 19,790.—ARCHIBALD MURRAY, of Troy, New York.—*Improved Wrench.*—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—Improved adjustable wrench, in which the movable jaw is fastened to the fixed one by means of a ring or collar C, which surrounds and slides upon the shanks of both jaws together, substantially as described.

No. 19,954.—ELIPHALET S. SCRIPTURE, of New Haven, Connecticut.—*Improved Wrench.*—Patent dated April 13, 1858.—This invention consists in the means employed for operating the movable head or jaw D of the wrench A, whereby the said jaw may be quickly moved and firmly adjusted to the nut or other article to be turned, the implement being held and the jaw operated with one hand only.

The inventor says : I am aware that a wrench has been made having a screw thread cut upon the face of the shank, and a screw nut fitted into one side of the movable jaw, the arrangement being such that when the periphery of the screw nut is forced and held into contact with the screw thread, by means of a cam button, the movable jaw may be operated by turning the nut ; I do not claim any device of this kind.

I am aware that a pawl H and a serrated bar A, in connexion with an arm E provided with a spring *b*, have been previously used, and I therefore do not claim said parts.

But I *claim* the employment within the pawl H of a screw rod G, substantially as and for the purposes set forth.

No. 20,211.—JAMES MCKENZIE, of Green Island, New York.—*Improved Wrench.*—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim and engravings.



*Claim.*—Fixing the movable jaw of an adjustable wrench by a toothed wedge, passing through the said jaw, fitting into the teeth or notches on the shank, in the manner specified, so as to keep the movable jaw firm to resist all pressure that may be applied to it.

No. 20,379.—GEORGE C. TAFF, of Worcester, Mass.—*Improved Wrench.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim a wrench having its movable jaw operated by two reversed male screws extending in opposite directions either from one another or from a rosette.

Nor do I claim a wrench in which the sliding jaw is operated by a single male screw rosette working in a rack applied to the stationary jaw.

Nor do I claim a wrench having its sliding jaw operated by a single male screw, whose milled head enters a recess or notch made in the shank, and has a pivot extending from it and working in a step made in a projection from the handle; such being the construction of the wrench of Doring Coes, as patented April 16, 1841. From this latter my improved wrench differs materially, inasmuch as it has two reversed male screws and its rosette; instead of being stationary in other respects than being capable of being revolved, will move endwise with the screws when they revolve. Furthermore, my improved wrench has the cylindrical slider K so made as not only to revolve with the male screws, but move endwise with them, and perform the function of maintaining the male screw rosette in connexion with its screw rack at whatever distance the rosette may be from the projection O. No such slider is found in Coes' wrench, because it is not necessary there; for in such there is no endwise movement of the screw, and no worm rosette and rack to be maintained in connexion. Coes uses a pivot, working in a cup or step, and both are so formed that no endwise motion of the pivot can take place.

But I *claim* a wrench provided with two reversed male screws for operating its movable jaw, arranging the lowermost screw G to work in a screw rack H, on the shank A of the wrench, and providing the said screw with a cylindrical slider K, extending below it, and operating so as not only to turn around, but move longitudinally with the screw, and in a socket piece O connected with the handle; the whole being substantially as described.

No. 21,196.—FRANCIS D. HAYWOOD, of Malden, Mass.—*Improved Wrench.*—Patent dated August 17, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—The wrench constructed substantially as described; that is, combining with the head or upper jaw, when rigidly connected with its shank, a brace c and screw arranged respectively on opposite sides of and parallel with the said shank, for the purposes of insuring true play of the slide or lower jaw, and of keeping the slide and head constantly parallel.



No. 22,122.—JOSEPH HYDE, of Troy, N. Y.—*Improved Screw Wrench*.—Patent dated November 23, 1858.—This wrench is operated by moving the thumb-piece M, which will then move the jaw E towards the jaw L, or from said jaw, as the case may require. This wrench is taken in its cast form, and put together and riveted without any other finish.

The inventor says: First. I *claim* the arrangement of the thumb-piece M and the screw c, in the manner and place described.

Second. I claim making the sliding jaw E in two equal parts, divided on a vertical line with the bar D and the jaw L, so as to cast the nut R and the recess H at the same casting of the said sliding jaw.

No. 20,291.—ALFRED MONNIER, of Camden, N. J.—*Improvements in Manufacture of Metallic Zinc*.—Patent dated May 18, 1858.—This improvement consists in obtaining metallic zinc by a combination of two metallurgic operations: first, by separating the gangue from the rest of the ore, as a preliminary operation, or by applying to the ore a degree of heat such as would separate the oxide of zinc, or a large proportion of it, from the gangue, or by treating the ore with heat in connexion with lime or other flux, the more effectually to remove the gangue; and secondly, in heating the impure oxide of zinc by heat and carbon in a suitable retort or muffle, and obtaining therefrom metallic zinc.

*Claim*.—The process of obtaining metallic zinc from its ores by means of the combined metallurgic operations, substantially as described.

### III.—FIBROUS AND TEXTILE.

No. 19,647.—ALFRED E. NICHOLS, of Lowell, Mass.—*Improvement in Spinning Bobbins*.—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—A slotted bobbin, having a spring ring D E, or its equivalent, so applied to it as to impart increased adherence of the slotted portion of the spindle on which it is placed, essentially in the manner and for the purposes fully set forth and described.

No. 19,231.—SEWALL H. BOWKER, of Worcester, Mass.—*Improvement in Machines for Forming Bonnet Frames*.—Patent dated February 2, 1858.—This invention is an improvement upon the so-called French dies used for forming the crown frames of bonnets, and in the apparatus for working them. By these improvements the frame for the whole bonnet is formed of one piece of material, and at one operation.

The inventor says: I *claim* the row of pins S S S, or their equivalents, substantially as described.



No. 20,837.—HIRAM E. WEST, of Norton, Massachusetts.—*Improvement in Machinery for Pressing Straw Bonnets and other articles of varying thickness.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* a mould, either hot or cold, to form the article pressed, in combination with a flexible presser E operated by a fluid substance, either liquid or gaseous, substantially as described, so as to press the article or substance to be shaped or moulded into the mould, and give it the form or shape required.

I claim the use of cold water or other cold liquid to operate the flexible presser in combination with a hot mould, so that the cold flexible presser will condense the moisture evaporated or driven from the article pressed by the hot mould, and leave said article nearly or quite dry.

I also claim the process of shaping bonnets, hats, and other articles, by pressing them into or on to a mould A, either hot or cold, by means of a flexible presser, operated by some liquid or gaseous substance, substantially as described.

No. 22,100.—ANDREW B. CLEMONS, of Derby, Connecticut, assignor to THE BIRMINGHAM IRON FOUNDRY COMPANY, of Birmingham, Connecticut.—*Improvement in Braiding Machines.*—Patent dated November 16, 1858.—The nature of this invention consists in so forming the weight which assists in regulating the tension of the thread as to enable it to have an up and down movement beside the vertical guide-bar, and surrounding said guide-bar above the weight with a metallic block having a flanch at its side, which projects over the ratchet teeth or notches formed on the top of the bobbin in such a manner as to enable the thread from the bottom to be passed through an opening or eye in the upright guide-bar, thence under the lower end of the weight, and thence through an eye at the upper end of the guide-bar to the object to be braided, whereby the diameter of the winding portion of the bobbin may be greatly reduced, and the bobbin made to hold much more thread, and turned with less friction than if the tension weight were arranged within a box at its centre, as in the ordinary method.

*Claim.*—Combining and arranging the tension and pall blocks or weights H K, which have a rising and falling movement over the vertical guide-bar E, in relation to the lower eye F in the bar E and the bobbins D described, for regulating the paying out of the thread from the bobbin, and consequently its tension in the manner set forth.

No. 21,568.—A. M. LANPHER, of Gloucester, New Jersey.—*Improvement in Brush Cylinders for Spreaders, Cotton Gins, &c.*—Patent dated September 21, 1858.—This invention relates to that class of machines which are used in cotton mills for picking and spreading the cotton as it is taken from the bolls and passed on to the rollers preparatory to carding, and consists in the application and use of a cylindrical brush, constructed and arranged whereby the brush, in combination with the saw cylinder, not only performs the office of the



“willow,” but that of the beater and blower at the same time, without danger of setting fire to the mill.

The inventor says: I am aware that metallic fans have been used on the ends of a cylindrical brush in the cotton gin, as described in E, Carver's patent; and I am also aware that brushes have been arranged around the periphery of the end of the cylinder, and that such an arrangement was patented by B. D. Gullet, in 1858; but while I believe I can prove priority of invention over Gullet, I deem my arrangement essentially different from an improvement upon his, as it combines the advantages of the fans of Carver with the protection against fire attained by Gullet. I therefore *claim* the brushes on the ends of the cylinder when arranged substantially as above described, for the purpose of preventing the filaments of cotton or other fibrous substance from becoming entangled in the journals and for preventing accidents by fire.

No. 21,685.—RICHARD KITSON, of Lowell, Massachusetts.—*Improvement in Card Clothing*.—Patent dated October 5, 1858.—This invention consists in so forming the pointed teeth for card clothing for cotton gins and wool burring machines, that when the clothing is wound upon a cylinder or fastened to an endless belt the points will be below the thick points of the wires, and the thick parts of the wires which constitute the heels of the teeth will form smooth surfaces for the seeds or burs to roll upon, and thus prevent the latter from coming in contact with, and being broken by, the joints; and also prevent the damage which the teeth would receive by their points coming in contact with the seeds or burs.

*Claim*.—Constructing the teeth so that when in place their points are below or less prominent than and protected and guarded by their thick parts or heels, substantially as and for the purpose specified.

No. 19,585.—CHARLES G. SARGENT and FRANCIS A. CALVERT, of Lowell, Massachusetts —*Improvement for Clothing for Carding Cylinders*.—Patent dated March 9, 1858.—Iron, steel, or other wire of a suitable size is rolled between plain rollers, so as to produce a thin flat strip or tape. The teeth are then formed upon one side of this strip, and these teeth are afterwards turned up at right angles to the strip, or the teeth may be bent by the same punch which forms the teeth, it being so formed that as it descends to form one tooth it shall bend the one last made.

The inventors say: We are aware that clothing for carding cylinders and burring cylinders has been made by punching up teeth from short strips of sheet metal, which were secured longitudinally to the cylinder, and we therefore lay claim to no such invention.

But we claim the described method of making clothing for burring and carding cylinders, the teeth being formed upon flattened wire and bent at right angles to the plane of the strip of metal which sustains them, for the purpose set forth.

No. 21,364.—CHARLES E. PRICE and JOSEPH HAYTHORN, of Thompsonville, Connecticut.—*Improvement in Carding Machines*.—Patent



dated August 31, 1858.—This invention consists in the employment of a revolving grooved or threaded cylinder applied below the comb, which removes the fleece from the doffer, and near to and parallel with the doffer, for the purpose of receiving the fleece as it is struck from the doffer by the comb and conveying the same away, by means of its revolutions, in a direction parallel with the axis of the doffer, through a tube arranged at one side of the machine.

*Claim.*—The spirally grooved or threaded cylinder E, applied in the manner substantially as described, in combination with the doffer and comb, and with a tube F to operate as set forth.

No. 20,037.—GILBERT H. CHESBRO, of Stafford, Connecticut.—*Improved Device for Turning Down the Edges of Elastic Cloth.*—Patent dated April 27, 1858.—The improvement in this machine consists in turning the edges of the faced side of the cloth over as it passes through or between the compressing cylinders, to meet and unite with the edge of the back side or lining, making perfectly finished, smooth, and firm edges on both sides of the cloth, and leaving a smooth and perfect surface on the face side and back side of said cloth.

*Claim.*—The plate B, constructed and operating as described, for the purpose of turning the edges of the face side of the cloth over as it passes between the compressing cylinders.

No. 21,930.—MILTON D. WHIPPLE, of Charlestown, Massachusetts, assignor to ALFRED B. ELY, of Boston, Massachusetts.—*Improvement in Forming Bats for Felt Cloth.*—Patent dated October 26, 1858.—The first part of this improved process of preparing the bat for felting consists in shortening the staple used, by breaking or tearing in pieces the fiber; this gives a greater number of short fibers or ends to be interlocked with each other when the bat comes to be fulled.

The second part consists in a combination of certain devices for working the wool and making it into a bat after its staple has been shortened.

The inventor says: 1st. I *claim* shortening the staple, in the manner and for the purpose substantially as set forth, previous to forming the bat.

2d. I claim the combination of the draw rolls 1 and 2 with a brush cylinder B, a doffer C, and a suitable device upon which to form the bat, operating in the manner substantially as described for the purpose specified.

No. 19,235.—THOMAS B. BUTLER, of Norwalk, Connecticut.—*Improvement in the Mode of Forming the Bat for Making Felt Cloth.*—Patent dated February 2, 1858.—The nature of this invention will be understood by an examination of the claim. The engraving is too elaborate for publication.

The inventor says: I do not claim the method of forming a bat of fibers deposited lengthwise, for that is open to the public; nor the method of forming a bat by alternating layers of lengthwise and transverse fibers, for that is covered by the Arnold patent referred to.

But I *claim* the arrangement of the machines, or their equivalents,



in the manner substantially as described, operating in combination, for the purpose of forming a bat, by the interposition of a layer or sliver of diagonal fibers between the alternating layers of longitudinal and transverse fibers, as set forth.

No. 21,931.—MILTON D. WHIPPLE, of Charlestown, Massachusetts, assignor to ALFRED B. ELY, of Boston, Massachusetts.—*Improvement in Machinery for Fulling the Cloth in the Piece.*—Patent dated October 26, 1858.—The object of this invention is to avoid the partial pulling and strain upon any portion of the cloth, and consists in so manipulating it during the felting process that it shall at no time be subjected to strain, but only to compression.

*Claim.*—Fulling or felting cloth in the piece, by the action of rollers revolved alternately in one direction and the other, when the cloth is wound loosely on a spool, in the manner substantially as set forth.

No. 20,695.—JOHN P. BOYD, of Charlestown, Massachusetts —*Improvement in Machines for Turning Selvages in Cloth.*—Patent dated June 29, 1858.—The object of this invention is to facilitate the construction of sails for vessels, or in other words to prepare for being sewed the canvas of which they are composed, by turning down its selvage or edge in an expeditious and perfect manner.

The inventor says: I *claim* a combination of the following devices or their mechanical equivalents, viz: one or more guiding ledges B C, a bending or creasing roller C, a shoe or turning cam *b*, and one or more flattening or pressing rollers *a*, applied together and to a table or bed A, so as to operate substantially in manner and for the purpose as specified.

And in combination therewith I claim the press board *d*, arranged with respect to the table, and the said devices for turning and pressing the selvage of the cloth, substantially in manner and so as to operate on the cloth as specified.

No. 20,677.—ALBERT A. WOOD, of Jersey City, New Jersey.—*Improvement in Machines for Picking Cop Waste.*—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim.*—The combination described of a reciprocating toothed bed F, with vibrating toothed feeding rollers D D<sup>1</sup>, or their equivalent, with a stationary toothed cover, when the teeth are constructed and arranged in reference to each other in the manner described and shown, to pass the waste or cotton through the machine without seriously rending the fiber, and at the same time securing a precise and even feed to the bed by the combination of the vibrating toothed rollers working at a corresponding speed as set forth.

No. 19,554.—CHARLES FEICKERT, of New York, New York.—*Improvement in Machinery for Manufacturing Plated Cord.*—Patent dated March 9, 1858.—The cotton threads from the spools U U, after passing through the guides *u u* and notches 55, in the flanges *f f*, are



by the rotary motion of the strand spindles, twisted together to form the strands which, after passing through the central holes  $i\ i$  in the head pieces  $S^1\ S^1$  of the spindles, are covered with the threads of silk or wool from the spools  $V\ V$ , which latter thread after passing through guides  $v\ v$ , are laid evenly by passing through the notches  $6\ 6$  in the flanges  $f^1\ f^1$  and wound around the strand. The strands thus twisted and covered are taken up by the regenerators  $R\ R$  and conveyed to the pulleys  $r\ r$ , which are combined to operate like the laying block of a rope machine, and after passing between the pulleys, the strands are twisted together by the rotary motion of the laying spindle, and as fast as they are twisted into a cord it is taken up by the spool  $Q$ .

The inventor says: I *claim*, first, the construction of the strand spindles, substantially as described, whereby the operations of twisting together the threads to form the strands and the covering or plaiting of the strands are performed simultaneously and by the same rotary motion, and a uniform twist thus given to the threads of the body and of the plaiting or covering.

Second. The regulators  $R\ R$ , applied substantially as described, between the strand spindles and the laying spindles, for the purposes set forth.

Third. The arrangement of the strand spindles, the laying spindle, and the rollers  $r\ r$ , or other equivalent for laying the strands, substantially as described for the purpose set forth.

No. 20,690.—JAMES A. BAZIN, of Canton, Massachusetts.—*Improvement in Machinery for Braiding Cordage*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not intend to restrict myself to the use of the particular number of spools mentioned in the description, it being obvious that by varying the size of the circular geared plate  $gg$ , any number of spools which can be divided by three can be used.

I *claim* the combination of the gears  $m\ m$ , geared circle  $9\ 9$ , and gears  $o\ o$ , with their curved arms, whereby one spool and its strand is made to travel around two stationary ones, and thus form an interlocking twist, as described.

I also claim, with the above combination of devices, the use of a series of double gears  $o\ o\ o\ o$  whereby the spools can be revolved in either direction, according to the direction of the twist of the yarns.

No. 20,691.—JAMES A. BAZIN, of Canton, Massachusetts.—*Improvement in Manufacturing Braided Cordage, Webbing, &c.*—Patent dated June 29, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

*Claim.*—The improvement in the manufacture of cordage, webbing, or other similar fabrics, which consists in laying up or so combining the strands as to form an interlocking twist, in which each and every strand passes around and interlocks with two others, as set forth, and thereby brings the strain equally upon each strand.



No. 19,394.—CULLEN WHIPPLE, of Providence, Rhode Island.—*Improvement in Drawing Cotton, &c.*—Patent dated February 16, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The method described of drawing cotton, wool, flax, or other fibrous materials, viz: by means of a revolving toothed or card-clothed cylinder A and a single pair of drawing rollers B C, which draw the fibres directly from the teeth of said cylinder A, the surfaces of said rollers B C revolving as much faster than the surface of cylinder A as is requisite to produce the desired degree of drawing.

No 21,932.—MILTON D. WHIPPLE, of Charlestown, Massachusetts, assignor to ALFRED B. ELY, of Newton, Massachusetts.—*Improvement in Machinery for Combing Cotton.*—Patent dated October 26, 1858.—In the engravings is represented a double acting combing machine, having two sets of cards, nippers, and doffers so arranged that the arms which carry the nippers are vibrated, and one pair of nippers is carrying the cotton which it has drawn from the feed rolls up to one doffer, the other pair of nippers will be returning for a fresh supply to be carried up to the other doffer.

The inventor says: First, I *claim* the vibrating elastic feed roll and permanent knife edge for holding the staple, as set forth.

Second, I claim the combination of the feed for introducing the material into the machine the vibrating card *d*, and nippers, and the stationary cards *t* and *b*<sup>1</sup>, operated in the manner substantially as described.

No. 20,270.—THOMAS OLIVER, of Yazoo City, Mississippi.—*Improvement in Machines for Cleaning Cotton.*—Patent dated May 18, 1858.—The invention consists in the employment of a series of toothed rollers *a b c d* and *e* and a fan D, so arranged that the cotton is loosened and its fibres separated one from the other, so as to “lighfen up” the mass and detach or loosen the dirt and other foreign substances from it. The cotton being discharged in a thin layer or sheet so as to be effectually operated upon by a blast generated by the fan, the blast separating the dust and other light impurities from the cotton. This invention also consists in connexion with the toothed rollers and fan, a toothed endless apron F arranged relatively with a guide board G, whereby husks and other foreign substances which the cotton may contain, and which are too heavy to be acted upon by the blast, are separated from the cotton.

*Claim.*—The arrangement of the toothed rollers *a b c d* and *e*, the guides *h* and *g*, and toothed carrying apron F, constructed and operating together in the manner for the purpose specified.

No. 21,270.—JOHN W. NEWELL, of New Brunswick, New Jersey.—*Improvement in Elastic Fabrics.*—Patent dated August 24, 1858.—This invention consists of a new article of elastic fabric produced by means of combining india rubber, or gutta percha, or their compounds, or the compounds of either of them, or other elastic gum, with a plaited or braided fabric, when applied either by being cemented to the braid in strips or sheets, or in a plastic state.



*Claim.*—An elastic fabric formed by the application of an elastic gum to the side of braid, substantially as described.

No. 20,267.—JOHN GUJER, of Philadelphia, Pennsylvania —*Improvement in Thick Woven Fabrics.*—Patent dated May 18, 1858.—The sets of warp threads 1 1 and 4 4 pass around the sets of filling threads A A<sup>1</sup> and the sets of filling threads B B<sup>1</sup>, and are united together. The sets of filling threads 3 3 and 6 6 pass around the filling B B<sup>1</sup> and C C<sup>1</sup>, and are also united firmly together and so on. In this fabric every set of warp threads turn around each of the outer threads A A and F F, and crosses all the other filling threads diagonally.

*Claim.*—The manufacture of stout textile fabrics for the purposes above named, of considerable thickness, in which all the warp threads are interwoven with the filling threads, substantially in the manner described.

No. 20,263.—THOMAS FRANCE, of New York, New York.—*Improvement in Woven Tucked Fabrics.*—Patent dated May 18, 1858.—For weaving the fabric plain four leaves of harness are required, two for each warp. In weaving the straight part *a a* of the fabric all four leaves of harness are operated and both warps are used, but on arriving at the point where a tuck is to be made the weaving of one of the warps is stopped, by suspending the operation of its two leaves of harness, and the weaving of the other warp, which may be termed the tuck warp, continues for a sufficient distance to form the tuck, after which the loom is stopped and the beam of the tuck warp is relieved of the friction to which it is subjected during the weaving operation, and the lay and reed brought forward to bring the last thread weft that has been woven into the said warp singly up to the last thread that has been woven into the two warps.

*Claim.*—The tucked fabric produced entirely by weaving, in the manner substantially as set forth.

No. 21,164.—THOMAS B. BUTLER, of Norwalk, Connecticut, assignor to LOUNSBERRY BISSELL & COMPANY, of said Norwalk.—*Improvement in Machinery for Forming Bats for Felting.*—Patent dated August 10, 1858.—This invention consists in arranging in the ordinary calender roll now in use, to felt the sliver upon the apron as it comes from the card, or the vibrating roll, a movable rod, in which the teeth are placed, which teeth hold the sliver in place while the vibration of the traversing rolls is changed, whereby an acute or any desired angle may always be formed, and by means of cams, and the movable character of the rods in which the teeth are fixed, the teeth may be withdrawn from the sliver when it is brought in contact with the apron.

The inventor says: I do not claim the rolls J, G, or F, nor any combination of them, nor the vibration of J and G, nor the process of depositing the sliver diagonally upon the roll or apron.

But I *claim* the arrangement of rows of teeth upon the calendar or felting roll, to hold the sliver while the vibration of the roll G is changed, and the angle formed substantially as described.



I also claim the rods L, springs M, pins P, and cams R, or their equivalents, arranged and operating as described, and for the purposes set forth.

No. 21,771.—S. S. MILLS, of Charleston, South Carolina.—*Improvement in Machines for Separating the Fibres from the Pulp in Hemp Leaves*.—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim preparing the hemp leaves by boiling or steaming the same in vats, for this has been previously done in preparing ordinary hemp stalks.

But I *claim*, first, the toothed cylinder H, concave C, provided with the steam or water pipe S, and reciprocating bar D provided with the clamp E, arranged substantially as shown for shredding the hemp, as set forth.

Second. The vibrating toothed plates Q Q, in combination with the reciprocating clamp bar L, and steam or water pipes R R, for the purpose of heckling the hemp, as described.

Third. The cylinder H provided with the longitudinal plates e, and the concave I provided with the loaded plates or flaps J, combined, arranged substantially as shown for the purpose of skutching the hemp or separating the pulp from the fibre.

Fourth. The combination of the tooth cylinder B, concave C, toothed plates Q Q, clamp bars D L, cylinder H, and concave I, provided respectively with the plates e J, when the whole are arranged for joint operation, substantially as and for the purpose specified.

No. 21,077.—AZEL STORRS LYMAN, of New York, New York.—*Improvement in Separating the Fibres of Wood*.—Patent dated August 3, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—The mode of separating the fibres of wood, flax, or other fibrous substances, for paper, cloth, or other purposes, by charging the mass with hot water, steam, compressed air, or other elastic fluid, while in a cylinder or other suitable receptacle, and then causing it to be projected from said receptacle into the atmosphere, or any space where it is subjected to a sufficiently less pressure to cause its disruption by the sudden expansion of the fluid within it, substantially as specified.

No. 19,600.—OLIVER WOODWORTH, jr., and JOHN D. PAGE, of East Hartford, Connecticut.—*Improvement in Machines for Picking Fibrous Material*.—Patent dated March 9, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventors say: We *claim* the combination of two or more conical cylinders, having teeth placed spirally around them at proper intervals, and within a suitable case having teeth arranged in such manner as to allow the teeth in the cylinders to pass between them, for the purpose described and in the manner substantially as set forth.

We wish it understood that we do not confine ourselves to the precise dimensions given, but vary according to the kind of stock used and quantity required.



No. 21,659.—ALEXANDER DOUGLAS, of New York, N. Y.—*Improvement in Folding-Guides*.—Patent dated October 5, 1858.—This invention consists of a peculiar tube of such interior dimensions and form that it sustains and guides the cloth, and, by folds in the said tube, compels the cloth drawn through it to be folded along three lines, so as to produce a binding with both edges concealed, without destroying the stiffness of the cloth or giving it any disposition to curl.

The inventor says: I do not confine my invention to the sewing of any particular material, but only to such work as requires both edges of the material to be turned under and protected from wear. I do not know or believe that it is practicable to produce bindings similar to mine by any means previously known. Bindings have been folded along the middle by means analogous to mine, but the edges of the binding were left exposed. Various hemmers have also been invented for folding under the edges of cloth, but they are not capable of being crowded into so limited a space as is required for this purpose, nor of being constructed so cheaply as mine; beside which, they offer more resistance to the passage of the cloth, and bend or fold the same in a manner which impairs its stiffness and gives it a disposition to curl, which renders it impossible to produce so evenly folded and evenly sewn work as mine, if indeed, it is possible, as I doubt, to accomplish the object at all by such means. To enable the work to go on continuously and smoothly, the work must be delicately and gently supported on all sides, and carefully preserved from any deranging influences, among the worst of which influences would be severe pulls in any direction, and the curling and limbering effect produced by being drawn through hemmers.

I claim the peculiar flattened tube B, folded upon itself, as described, so as gradually to fold the enclosed material along three lines, and at the same time to support it on all sides, and preserve its stiffness at all other points, substantially as described and for the purposes set forth.

No. 19,041.—JAMES F. ORR, of Orrville, Alabama.—*Improvement in Cotton-Gins*.—Patent dated January 5, 1858.—In the engraving R is the rib, jointed as shown at *a*, or made rigid, if desired; *o o o* are openings through the rib to carry off the seed and dirt; S represents the saw, and shows its position relative to the ribs and openings.

*Claim*.—Making in the ribs or grates of cotton-gins, either jointed or rigid, one or more openings for the passage of seed and dirt, as set forth.

No. 19,097.—DAVID G. OLMSTEAD, of Vicksburg, Mississippi.—*Improvement in Cotton-Gins*.—Patent dated January 12, 1858.—This invention is designed for ginning cotton which shall not have been separated from the bolls, and the improvements are mainly applied so as to act on the cotton before it shall be subjected to the ordinary operation of ginning. Therefore, the saws B B, grate L and its stripping-brush C, as well as the general arrangement of the frame A, may be as usual. The improvement may be added to gins of ordinary construction.



The inventor says: I am aware that a mote-brush has been used in the same relation to a stripping-brush and saws which my screen-brush occupies; therefore I disclaim such a combination and arrangement, irrespective of the kind of screen brush which I employ.

But I *claim* the ribs I I, constructed, arranged, and operating in connexion with the saws B B, substantially as described.

I also claim, in combination with the ribs I I and saws B B, the revolving feeding-screen D, located beneath the feed-box G and over the grate Q, substantially in the manner and for the purposes specified.

I also claim the combination of the revolving screen-brush E, with the stripping-brush C, when said screen-brush is constructed, operated, and arranged in relation to the brush C and the saws B, in the manner described and for the purpose specified.

No. 19,324.—LEWIS J. CHICHESTER, of New York, N. Y., assignor to HENRY G. EVANS, SAMUEL BARSTOW, and DANIEL L. WINTERINGHAM, of said New York.—*Improvement in Cotton-Gins.*—Patent dated February 9, 1858.—This invention consists in the employment or use of two rollers A B grooved circumferentially and fitted together in the same plane, so that the projecting flanches *b* of each roller will work in the grooves *a* of its fellow or adjoining roller.

The inventor says: I do not claim broadly the employment or use of grooved rollers, in themselves considered, without reference to their application to cotton-gins; for grooved rollers are used in sheet metal-working devices, crushing-machines, and various other machines for different purposes.

But I *claim* the rollers A B, grooved circumferentially, as shown, and having the peripheries of their flanches *b* smooth or serrated, the rollers being fitted together with or without the elastic wings *e*, substantially as and for the purpose set forth.

No. 19,415.—T. C. GARLINGTON, of Lafayette, Alabama.—*Improvement in Cotton-Gins.*—Patent dated February 23, 1858.—The saw teeth S take hold of the fibre and draw it gradually until the roller R is reached. The encounter of the seed with the roller causes the fibre to be stripped from it to a great extent unbroken. The cotton passes under the transverse grooves of roller R and is stripped from the saws by the brush B, which also cleans the roller R.

The inventor says: I do not claim broadly placing a roller above the saws, nor do I claim spirally grooving said rollers, as shown in the patented gin of Parkhurst.

But I *claim* grooving the roller R transversely above each saw and obliquely across the said transverse grooves, substantially as set forth, when used in combination with ribs *r* which diminish the protrusion of the saws gradually, as described.

No. 19,417.—BENJAMIN D. GULLETT, of Aberdeen, Mississippi.—*Improvement in Cotton-Gins.*—Patent dated February 23, 1858.—A represents the common ginning cylinder and B the usual stripping brush; below this brush B there is another brush D of equal size,



called the carding-brush, which is made to revolve about one-fourth as fast as brush B. In front of these brushes there is a cylinder E which bears upon its periphery a series of comb-plates or brushes *a*, which are made of steel saw plate.

The inventor says: I *claim* the combination of the comb-brush E, the gin-brush B, and the gin A, in the manner set forth; the brush B being arranged between the comb-brush and the gin-brush, in the manner and for the purposes set forth.

Second. I claim the lower carding-brush D, arranged and operating as set forth, in combination with the gin-brush and comb-brush, as set forth.

Third. I claim the blast-board F, in combination with the gin A, the gin-brush B, and the carding-brush D, in the manner set forth.

Fourth. I claim the end brushes *k k*, constructed and operating as set forth.

Fifth. I claim the curved guards L, arranged and operating as set forth, in combination with the lower carding-brush D and stripper E, as set forth.

No. 19,598.—FRANCIS L. WILKINSON, of Adam's Run, S. C.—*Improvement in Cotton-Gins*.—Patent dated March 9, 1858.—This invention consists in having one or both rollers B of the gin grooved spirally for the purpose of readily detaching the seed from the cotton, and also using, in connexion with the grooved rollers, stripping-brushes *v w* and a guard-plate E.

The inventor says: I am aware that the plate E has been previously used for the purpose stated, and stripping-brushes have also been used; I therefore do not claim separately the plate E.

I am also aware that grooved rollers have been used in cotton-gins, and therefore I do not claim them as my invention.

Nor do I claim, separately and irrespective of their relative position with the rollers D B, the brushes *v w* on the bars H I.

But I *claim* the arrangement, shown and described, of the spirally grooved rollers B D, one or both, stripping-brushes *v w*, and plate E, for the purposes set forth.

No. 19,679.—HIRAM W. BROWN, of Millville, New Jersey.—*Improvement in Cotton-Gins*.—Patent dated March 23, 1858.—The cotton is placed upon the plate W; and motion being applied to the shaft *b*, the roller B is rotated, and the cotton is drawn up over the upper edge of the plate R and down between the plate and roller B; at the same time the cotton is subjected to the action of the plate L, and the seeds are stripped from the cotton by the action of said plate.

The inventor says: I am not aware that a roller and vibrating and stationary plates have been previously used for ginning cotton, but arranged in a manner different to that shown; so far as I am aware, no provision has been made for the ready discharge of the seed from the cotton; I therefore do not claim broadly a roller B, vibrating-plate L, and pressure-plate R, irrespective of the arrangement and connexion with the parts shown, as these are seen in the patent of Fones McCarthy, dated July 3, 1840.



But I *claim* the roller B, stripping-plate L, and pressure-plate R, arranged as described, in combination with the yielding or vibrating feed board or plate W, provided with the rods *o*, the rods *n*, and doffer N; the whole being arranged to operate conjointly as and for the purpose set forth.

No. 20,120.—JAMES N. WILSON and GEORGE W. PAYNE, of Memphis, Tennessee.—*Improvement in Cotton-Gins*—Patent dated April 27, 1858.—The nature of this invention relates to the feeding of the cotton to the saws by means of a feeding cylinder; to the stripping of cotton of coarser impurities by means of projections on the ribs between which the saws run, and to the peculiar arrangement of the belting of the feeding cylinder, which permits the feeding-hopper to be raised, lowered, or adjusted to the ginning saws without previously stopping the machine.

The inventors say: We *claim* the adjustable hinged hopper and rib frame, in combination with the belt arrangement described, by which the side frame can be adjusted, raised, or lowered without stopping the motion of the machine, substantially in the manner set forth.

We also claim the projections *g* on the ribs, substantially in the manner and for the purpose described.

We also claim the toothed feeding cylinder G, in combination with the inclined grate H, partition *p*, and hinged cover *n*, substantially in the manner and for the purpose set forth.

No. 20,051.—JOHN DU BOIS, of Greensboro, Alabama.—*Improvement in Cotton-Gins*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The use of the flange *b* on the face of the rib, constructed, arranged, and operating in the manner described; that is to say, the flange situated opposite the lower edge of the hopper-board *c*, with the lower end extending below that point, to separate the ginned seed from the cotton and facilitate their passage from the roll-box.

No. 20,086.—STEPHEN R. PARKHURST, of New York, N. Y.—*Improvement in Cotton-Gins*.—Patent dated April 27, 1858.—The nature of this invention consists in connecting the stripper and ginning cylinder with an "internal gear," viz: a female gear-wheel surrounding and driving the pinion on the end of the stripper-shaft, by which means the proper motion is given to the stripper *c* from the cylinder *b*; the two are compelled always to rotate simultaneously, there being no chance for the cotton to clog.

The inventor says: I do not claim the ginning cylinder or stripper, nor the combination of the same with the brush blower, each revolving in the directions specified.

Neither do I claim internal gears in themselves.

But I *claim* the manner described of connecting a ginning or card cylinder with a stripper, by combining with said cylinder and stripper the internal gear *h* and pinion *i*, substantially as and for the purposes specified.



No. 20,216.—ENOCH OSGOOD, of Boston, Massachusetts.—*Improvement in Cotton-Gins*.—Patent dated May 11, 1858.—In the operation of this machine the cotton, with the seeds and dirt in it, is laid upon the endless apron *i*, and by such is deposited upon the inclined rack M, or in the space between the same and the adjacent cylinder B, and by such cylinder the double concave or guard C and the clearer D it will be separated from its seed and extraneous matters.

*Claim*.—The combination of the oscillating clearer D and the concave guard or plate C, constructed and arranged with the cylinder B and the rack M, and made to operate therewith, substantially in the manner and for the purpose as before specified.

No. 20,747.—J. ALEXANDER VENTRESS, of Woodville, Mississippi.—*Improvement in Cotton-Gins*.—Patent dated June 29, 1858.—The nature of this invention consists in making the saw plates C much thinner upon their edges, where their teeth are cut, and for a short distance below the gullets or roots of the teeth, than the remaining portions of the plates, so that the cotton cannot be crowded between said saw plates and the ribs B in ginning by any vibration of the plates or jaws.

*Claim*.—In combination with the ribs set close up to the saws, forming of a clear space between the ribs at that point where the teeth of the saw carries the cotton through them, to prevent said cotton from being brought in contact with said ribs, substantially as and for the purpose set forth.

No. 20,904.—JOSEPH TETLOW, of Taunton, Massachusetts.—*Improvement in Cotton-Gins*.—Patent dated July 13, 1858.—The gins in which this improvement is made are those such as are used for ginning Sea Island or long staple cotton, and the intention is to produce a machine which will gin long staple cotton more expeditiously, and at the same time work in a thorough manner, without injuring the fiber in the least. Grooved rollers used in connexion with vibrating plates and adjustable feed-boards, arranged so as to operate together and produce the effect desired.

*Claim*.—The rollers B B, one or more, grooved as shown, namely, longitudinally and parallel with their shafts, and grooved also in a zigzag manner, in connexion with the adjustable stationary plates S and vibrating plates *b*, arranged to operate as and for the purpose set forth.

No. 21,357.—HENRY C. PARKHURST, of New York, N. Y.—*Improvement in Cotton-Gins*.—Patent dated August 31, 1858.—The nature of this invention consists in the application of stationary end pieces to the hopper, combined with movable half end pieces connected with the breast board and jointed on to the fixed end pieces, whereby the fixed end pieces retain the cotton in the hopper, preventing the same from working over the end of the cylinder and around the journal, at the same time free access is provided for clearing the hopper when required.



The inventor says: I do not claim generally a hopper for cotton-gins.

Neither do I claim the mouth or opening beneath the board *i*, adjustable as set forth.

But I *claim* constructing the hoppers of cylinder cotton-gins with the fixed end pieces *f* and movable end pieces *g* on the breast-board *h*, attached by the joint 2, as and for the purposes set forth.

No. 21,582.—JOHN L. TUTTLE, of Bridesburgh, Pennsylvania — *Improvement in Cotton-Gins*.—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

*Claim* —So combining a toothed cylinder with an open breast that allows the fibre to pass through it, but holds back the seeds, as that the cylinder shall work against the edge of said open breast, and carry the fibre past it, whilst the seeds shall roll up against the surface of said breast, and draw the lint that has not been taken from them up through the openings, whence they are turned over and returned again and again by the action of the cylinder to the breast until divested of all their fibre, substantially as described.

No. 21,714.—A. Q. WITHERS, of Byhalia, Mississippi.—*Improvement in Cotton-Gins*.—Patent dated October 5, 1858.—The brush cylinder *F* strips the cotton from the ginning saws and conveys it to the carding saws *G*, which revolve in the direction opposite to that of the brush cylinder, and at about once and a half or double its velocity. These saws are smaller than the ginning saws, with much finer teeth, and their number is twice or three times that of the ginning saws. The stripping and discharging brush *H* which takes the lint from the carding saws may be of ordinary construction, and revolve at a speed of about once and a half or double that of the carding saws. It discharges the lint through the spout *I*.

The inventor says: I *claim* the curved spring board *C*, situated in the "roll-box," and provided with teeth projecting from its lower edge, arranged and operating substantially as specified.

I also claim the employment of the additional brush *E* and carding saws *G*, situated between the ginning saws *E* and discharging brush *H*, and acting in combination therewith, substantially as described. In combination with the additional brush *F* and carding saws *G*, I also claim the concentric screen *i i* and "break currents" *g g g*, when arranged in close proximity to said brush and saws, and for the special purposes set forth, in connexion with their action.

No. 21,795.—LEWIS S. CHICHESTER, of New York, N. Y., assignor to HENRY G. EVANS, of said New York.—*Improvement in Cotton-Gins*.—Patent dated October 12, 1858.—The object of this invention is to obtain a gin that will perform its work more rapidly than the ordinary saw gin without injuring the staple or fibre. This object is attained by dispensing with the usual stationary breast, which consist of a series of ribs placed in a frame, and between which ribs the saws work, and the cotton is forcibly drawn through in detached masses by



the teeth of the saws, and using instead an oscillating breast, in connexion with saws armed with peculiar teeth.

*Claim.*—The saws C, in combination with the oscillating breast D, the parts being constructed and arranged to operate substantially as and for the purpose set forth.

No. 22,288.—MICHAEL HARDY, of New York, N. Y.—*Improvement in Machinery for Forming Hat Bodies.*—Patent dated December 14, 1858.—This invention consists in making the picker or brush by which the fur is taken and thrown toward the pervious cone of a conical form, with the view of supplying more fur on to the base than the tip of the cone, and in combining with such conical picker or brush a feeding apron made in the form of a segment of a cone, and causing it to pass around two conical rollers, or the equivalent thereof, that fur may be supplied to every part of the length of the conical picker or brush in proportion to the diameter. This invention also consists in combining with the conical picker a series of rollers forming a concave to direct the discharge of the fur from the picker toward the perforated cone.

The inventor says: I *claim* combining a pervious cone, connecting with an exhausting apparatus, a picker or brush of a conical form, substantially as and for the purpose specified.

I also claim, in combination with the pervious cone and conical picker or brush, the apron formed and mounted, substantially as described, for supplying fur to the several parts of the length of the picker in proportion to the diameter, as set forth.

I also claim, in combination with the pervious cone and conical picker or brush, substantially as described, the employment of a series of rollers, forming a concave, substantially as described, to direct the fur toward the cone, as described.

I also claim, in combination with the two cones, the one on which the bat is formed and the other fitting over the bat, the tube connected with the exhausting fan and adapted to receive and hold the outer cone, substantially as described, to effect the transfer of the bat of fur fibres from the inner to the outer cone, as set forth.

No. 20,602.—S. W. WOOD, of Washington, D. C.—*Improvement in Machines for Sizing Hat Bodies.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—Sizing or planking hat bodies by rolling the bat continuously forward, that is to say, in one direction between endless belts running in opposite directions, and at different or variable velocities, as specified.

No. 21,382.—ALVA B. TAYLOR, of Newark, New Jersey.—*Improvement in Hat Body Machinery.*—Patent dated August 31, 1858.—The picker is composed of two disks A and B, one of which (A) is stationary, while the other revolves upon its axis. These disks face each other, and are studded with teeth in concentric rings of different diameters, so that the teeth of one disk enter between those of another.

The inventor says: Having described my improvement, and a



machine in which it is embodied, it may be proper to state that I do not limit it to the precise arrangement and construction described, but intend to vary these as circumstances may render expedient. Thus, for example, both disks of the picker may be caused to revolve either in the same directions with different speeds, or in opposite directions, and the picker may be combined with a perforated former not enclosed in a forming chamber, or with other devices than those described.

I *claim* the combination of a disk picker, operating substantially as set forth, with a perforated former.

I also claim a disk picker composed of two disks, whose faces are studded with teeth, operating substantially as set forth, to pick fibrous material fed into the eye of the picker, and to discharge the picked fibre at the run thereof.

No. 19,138.—WILLIAM A. FENN, of Brookfield, Connecticut.—*Improvement in Machinery for Forming Brims of Felt Hats*.—Patent dated January 19, 1858.—The nature of this invention will be understood by an examination of the claim and engravings.

The inventor says: I do not claim, in the abstract, the employment or use of conical pressure rollers, for they are used in various ways for similar or analogous purposes.

But I *claim* the employment or use of the two pair of rollers O F N G, arranged as shown, to wit: the upper rollers O N of each pair being fitted or placed in an adjustable frame K, and the two pair of rollers rotated with varying speed, whereby the hat brim is stretched, and at the same time subjected to the necessary pressure, as described.

I further claim giving the rollers G, a certain degree of elasticity, or allowing it to yield or give vertically, to a certain extent, by any proper arrangement, when said roller G thus arranged, is used in combination with the other described parts, whereby the pressure of the feed-rollers N G is rendered constant, and at the same time the pressure of the rollers O F allowed to be regulated as desired, for the purpose of forming an even and perfect brim, as set forth.

No. 19,616.—JAMES W. BEEBE, of New York, N. Y.—*Improvement in Ventilating Hats*.—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not wish to be understood as making claim broadly to the use of a sweat-leather, separated from the hat by an open space for the circulation of air; nor to the use of a perforated flanch for the admission of air to the space between the hat and the inner lining.

But I *claim* making the sweat of leather, or any of the equivalent substances usually employed for hat sweats, with a flanch pierced with numerous small holes *e e*, combined with and attached to the brim of the hat, substantially as described, so as to leave open space for the free circulation of air between the sweat and the hat.

No. 19,255.—SOLOMON P. MOORE, of Arrow Rock, Missouri.—*Improvement in Hemp-Brakes*.—Patent dated February 2, 1858.—The motive power being applied to the wheel A, causes the crank B on the



same axis to revolve, thereby communicating a reciprocating motion to the horizontal bar C, and this being attached to the frame D D, causes it to swing on the axis E through a small circular arc. The outer vertical faces F F of the side of this frame are serrated or corrugated.

The inventor says: I do not claim any of the improvements embodied in the machine for which a patent was granted to S. A. Clements in 1853.

I *claim* so corrugating the contiguous faces of the brakes in a transverse direction to the general line of the feed and general line of the longitudinal surfaces of said brakes as to prevent the fibres or stalks from escaping the proper action of the machine by a change of direction, when combined with the brakes vibrating in relation to each other, substantially as described and shown.

No. 20,890.—GEORGE M. NEWELL, of Lexington, Missouri.—*Improvement in Hemp-Brakes*.—Patent dated July 13, 1858.—By shaping the swords or slats of the reciprocating gates, and giving them a circular, reciprocating motion, they have a positive downward action upon the hemp or flax, both in their backward and forward motion, and thereby cause the same to be continuously drawn down from the hopper, and to be fed down through the machine without the aid of any auxiliary feed devices; and by arranging reciprocating whipping rods or beaters below the breakers, all the shoves are removed, and thus the perfect operation upon the hemp before it leaves the machine is insured.

The inventor says: I am aware that straight slats, in a horizontally reciprocating frame, in combination with similar stationary slats, have been used previous to the date of my invention. Also, that a reciprocating whipper has been used in combination with a reciprocating gate and other reciprocating devices for breaking hemp. Such devices and combination of devices, therefore, I do not claim broadly.

But I *claim*, first, giving the slats of the pivoted frame a curve, which is concentric with the axis on which the frame A in which they hang reciprocates, and arranging said slats or swords so as to move in curved slots of stationary pillars as the frame reciprocates, substantially as and for the purposes set forth.

Second. The arrangement in the manner specified, below the breaking swords or slots, of two sets of stationary beaters or whipping rods, and two sets of reciprocating beaters or rods G G<sup>1</sup>, the latter being attached to pivoted rocking arms provided with curved slats E<sup>1</sup> E<sup>2</sup>, so that they shall reciprocate in the path of a vertical circle, and operate in combination with the stationary rods, substantially as and for the purposes set forth.

No. 21,513.—H. D. McGEORGE, of Morgantown, Virginia.—*Improvement in Hemp-Brakes*.—Patent dated September 14, 1858.—The nature of this invention consists in the manner in which the breakers and cleaners are arranged and combined.

*Claim*.—Breaking and cleaning hemp, flax, &c., by a combination of vibrating blades *d i* and stationary blades *e k*, and clearing devices



*f n* acting in concert with them; the whole being arranged and operating substantially in the manner set forth.

No. 21,680.—WILLIAM C. HUTCHINSON, of St. Joseph, Missouri.—*Improvement in Hemp-Brakes*.—Patent dated October 5, 1858.—The nature of this improvement consists in constructing a hemp-breaking machine, wherein the features of invention are a peculiarly shaped tooth or breaker, which is termed the rounded, oval, or bevelled, angular shaped tooth, together with a pendantly arranged swingle, or a vibrating sword or beater, with a horizontally arranged reciprocating or a sliding scalloped edged, double jaw hatchel, or beaters.

The inventor says: I *claim* the tooth described and illustrated in the drawings as constructed, to be used in the drums of cylinder hemp brakes, as set forth.

I also claim the combination and arrangement of the pendant scalloped edge swingle *P P P q q r r*, with the sliding or reciprocating double jaw hatchel *s s s s t t*, arranged and operated substantially in the manner as set forth and described.

No. 21,983.—WILLIAM SHELBY, of Waverly, Missouri.—*Improvement in Hemp-Brakes*.—Patent dated November 2, 1858.—A represents a horizontal rectangular frame, which is properly supported at a suitable height, and on which two parallel bars *B B* are secured longitudinally at a suitable distance apart. *C* is a bar which is placed between the two bars *B B*, and allowed to work freely between them. To the under side of bar *C* a traverse bar *D* is attached, said bars resting on longitudinal bars *E*; and to the traverse bar *D* is attached an inclined bar *F*, said bar *F* having one end of the connecting-rod *G* connected to it, the opposite end of the rod *G* being attached to crank *H*, which is on the driving or power shaft *H*<sup>1</sup> of the machine.

The reciprocating bar *C* is provided with beaters *J*, which are placed parallel with the sides of its bar. The beaters *J* are not quite as high as the blades *I*. To the bars *I*, at their inner sides, vertical metallic plates *K* are attached, said plates being attached to the bars near the inner edges of the blades *I*.

*Claim*.—The arrangement of the beaters or blades *I J* at varying distances, in combination with the yielding plates *K*, as and for the purposes shown and described.

No. 22,399.—ROBERT HENEAGE, of Buffalo, N. Y., assignor to Himself and EDWARD O. BALL, of said Buffalo.—*Improvement in Hemp-Brakes*.—Patent dated December 21, 1858.—A represents a table upon which the flax or hemp is laid in order to be carried to the brake *B B*<sup>2</sup>. This consists of two fluted rollers, the one placed above the other, and both running together. Journals are formed upon their ends, which have bearings in the standards *D*.

*C*<sup>2</sup> is a strip of metal which is let in longitudinally across the face of the revolving cylinder *c*, and, arranged as they are with the cylinder, constitute a beater.

*K* is a shell of metal which lies parallel with the roller *B*<sup>2</sup>, and close to it, and forms nearly a quarter circle around it. *X* shows a



chamber or recess for the purpose of passing the hemp into during the process of dressing.

The inventor says: First. I *claim* the combination of the reversing mechanism with the brake B B<sup>2</sup>, beater C C<sup>2</sup>, and shell K, substantially as described, and for the purpose of dressing hemp, as set forth.

Second. I claim the combination and arrangement of the brake B B<sup>2</sup> with the revolving beater C C<sup>1</sup>, shell K, and revolving apron J, for the purpose of dressing flax, substantially as set forth.

Third. I claim the arrangement of the chamber X within the machine, for the purpose of affording room for the movements of the hemp while being dressed, substantially as described.

No. 21,264.—SAMUEL H. LITTLE, of St. Louis, Missouri.—*Improvement in Machines for Breaking Hemp*.—Patent dated August 24, 1858.—The claim and engravings explain the nature of this improvement.

*Claim*.—In combination with the main beating cylinder F, rotating in a fixed vertical plane on the permanent frame of the machine, the arrangement of the feeding apron, breaking and crushing rollers, and concave, in a second frame adjustable on the first one, so that when it becomes necessary to adjust the concave to the beating cylinder, the parts preceding the concave in the operation shall always maintain the same relative positions to it and to each other, as set forth. Also, the arrangement and operation of the beater cylinder F, the concave J, the reel *f*, and carrying apron *g*; all as described and represented, and for the purpose specified.

No. 20,827.—WERNER STAUFEN, of London, England.—*Improvement in Treatment of Fibre of Tampico Hemp*.—Patent dated July 6, 1858.—The claim will explain the treatment of the fibre of Tampico hemp.

*Claim*.—Changing the properties of the fibres of the plant known as the “Argave Americana,” by first saturating said fibres with an alkaline solution, and then immediately submitting the same to the action of a high degree of artificial heat, substantially as herein described, and preparatory to using said fibres as a substitute for horse hair and bristles in the production of various useful articles.

No. 19,625.—LINUS B. COOLEY and JAMES C. COOKE, of Middletown, Conn.—*Improvement in the Manufacture of Textile Hose*.—Patent dated March 16, 1858.—By springing the warp shades, and throwing in the woof successively in A and B, there is formed a single hose or pipe. After throwing in a suitable number of woof threads in A and B, the warp shades of C and D are sprung, and cross the woof from A and B to C and D, and through them successively a suitable number of times, thus forming a second single pipe or hose within the one already woven.

*Claim*.—The double tube or hose, as a new article of manufacture, woven in the manner and for the purpose specified.

No. 20,883.—JAMES PEATFIELD, of Ipswich, Mass.—*Improvement in Manufacturing Knit Gloves*.—Patent dated July 13, 1858.—The object



of this invention is to produce seamless knitted gloves by machinery. This is done by knitting the hand of a glove and the fingers and thumb separately, each in circular form, and consequently without seam, and uniting them by knitting them together by hand.

The inventor says: I do not claim to be the inventor of a seamless knit glove, as such are knit by hand.

But I *claim* the manufacture of seamless knitted gloves by knitting the hand and the fingers and thumb separately, and uniting them in the manner substantially as described.

No. 19,370.—JOSEPH K. KILBOURN and EDWARD E. KILBOURN, of Norfolk, Conn.—*Improvement in Knitting-Machines*.—Patent dated February 16, 1858.—The claim and engravings will explain the main features of this invention. A detailed description of this machine would take up too much space to be given here.

The inventors say: We *claim* combining the needles and sinkers with a reciprocating carriage, operating substantially as set forth.

We also claim the adjustment of the position of the needles at the time the sinkers are forming the folds of yarn by means of grooves in the nosing, whose sides converge so as to insure the uniform width of the stitches.

We also claim the combination of a reciprocating series of needles, with a reciprocating thread guide, operating substantially as set forth, so as to move at times with the needles, and to remain stationary at other times when the needles are moving.

We also claim the varying of the width of the fabric by causing the thread guide to pass down between one pair of needles and to rise between another pair by mechanism operating substantially as set forth, thus producing a selvage edge when widening is effected.

We also claim the combination of under supports, operating substantially as set forth, with a reciprocating series of needles, so as to support the needles and effect the closing of their barbs.

We also claim combining with a reciprocating series of needles and sinkers cam bars, or their equivalents, in such manner as to impart the necessary movements for forming the loops to the several members of the series in succession, substantially as set forth.

We also claim combining a reciprocating series of needles and sinkers with reciprocating mechanism for taking up the work as it is formed, substantially as set forth.

No. 19,740.—JOSEPH VICKERSTAFF, of Philadelphia, Pennsylvania, assignor to MARTIN LANDENBERGER, of said Philadelphia.—*Improvement in Knitting-Machines*.—Patent dated March 23, 1858.—This improvement consists in the employment of two sets of thread guides  $v^1 v$ , actuated by a cam wheel and levers in such a manner that their respective threads may be knitted first by one and then by another set of needles.

*Claim*.—Imparting to two sets of thread guides the continuous vibratory movement, combined with the transposing movement described, by means of the cam wheel L, acting in conjunction with the



lever K and arms  $p$  and  $p^1$ , or equivalent devices, for the purpose specified.

No. 20,854.—NELSON P. AIKEN, of Troy, New York.—*Improvement in Knitting-Machines*.—Patent dated July 13, 1858.—This invention consists in a certain mode of combining the sinker wheel or any toothed wheel gearing into and deriving motion from the needles with a movable stop H, which is applied to the belt shipper G to lock it in a position to hold the driving belt on the driving pulley of the machine as long as the knitting progresses properly, whereby, as soon as the thread breaks, or any of the loops miss, the shipper is caused to be unlocked and allowed to be moved by a spring, or its equivalent, applied for the purpose, to a position to ship the belt on to a loose pulley, and thus stop the machine.

The inventor says: I am aware that it is not new to use a belt-shipping apparatus in a knitting-machine to move the belt from the driving to the loose pulley, when the yarn breaks or gives out, and therefore I do not claim broadly this as my invention.

But I *claim* the arrangement of the shipper or belt-shifter G in the manner substantially as described, and in combination with the movable stop H, lever M, and sliding bar K, when controlled by a sinker wheel, or by any wheel gearing with and moved by the needles, for the purpose set forth.

No. 21,045 —JOSEPH P. DELAHUNTY, of Cohoes, New York, assignor to Himself and EDGAR S. ELLS, of Troy, New York, and said ELLS having reassigned his right, title, and interest in the same to CLARK TOMPKINS, of Troy, aforesaid.—*Improvement in Knitting-Machines*.—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—So arranging or adjusting the presser and connecting it with the yarn running to the needles B that, when the yarn breaks or fails, the presser E will move and cease depressing the barbs of the needles, and thereby prevent the casting off of the “quarter” or web, substantially as set forth.

No. 21,396.—THOMAS LOVELIDGE, of Germantown, Pennsylvania, assignor to Himself and WILLIAM TULFIRTH, of said Germantown.—*Improvement in Knitting-Machines*.—Patent dated August 31, 1858.—This improvement consists in introducing between the thread guides a pressure bar, which is so connected to the guides as to press the loops formed on the needles down the latter and over the pawls, so that the fabric may consist of single instead of double threaded loops, and similar to fabrics knitted by hand, and at the same time require less material than the fabric produced by ordinary machines.

*Claim*.—The pressure plate E, situated between the two rows of thread guides  $d$  and  $d^1$ , and operated so as to press the loops down the needles, substantially in the manner and for the purpose set forth.

No. 21,762.—JOSEPH K. KILBOURN and EDWARD E. KILBOURN, of Norfolk, Connecticut.—*Improvement in Knitting-Machines*.—Patent



dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim* the transferring of stitches in a knitting machine from the needles on which they have been formed to other needles by means of transferring hooks, or their equivalents, which take the stitches from the needles, move along to other needles, and deliver the stitches to these other needles, operating automatically, substantially as set forth.

We also claim arranging transferring hooks with reference to the needles in such manner that they may enter the stitches upon the needles by moving along the stems of the needles toward their heads, substantially as set forth.

We also claim directing the operations of transferring hooks, or their equivalents, for transferring stitches by means of a pattern barrel, or its equivalent, operating substantially as set forth.

We also claim combining the mechanism that actuates transferring prongs with the mechanism that moves the needles of a knitting-machine in such manner that the prongs enter the stitches upon the needles at times when the latter are supported both vertically and laterally, substantially as set forth.

We also claim combining a nosing having V-shaped grooves, with transferring prongs having corresponding grooves, the grooves of the nosing and prongs acting in concert to confine the needles and direct their heads into the stitches on the transferring prongs.

We also claim controlling the operation of the mechanism by means of which the relation of the thread guide to the needles is changed so that yarn is supplied to more or less needles by means of a pattern barrel, or its equivalent, operating substantially as set forth.

We also claim varying the extent of travel of the needle carriage in proportion to the number of needles at work, by means of mechanism operating automatically, substantially as set forth.

We also claim varying the periods of time at which the transferring mechanism begins to operate in proportion to the number of needles at work by means of mechanism operating automatically, substantially as set forth.

We also claim combining the widening mechanism with the mechanism that actuates the needle carriage in such manner that the period of time at which the former operates is varied in proportion to the number of needles at work.

We also claim combining the mechanism that actuates the pattern barrel, or its equivalent, with the mechanism that actuates the needle carriage, in such manner that the period of time at which the former is moved is varied in proportion to the number of needles at work.

We also claim combining the widening mechanism and the narrowing mechanism together, when both are used in the same machine, in such manner that the movement of the one to do its work is attended by a corresponding movement of the other, so that the thread guide and transferring hook, or their equivalents, are both in the proper position to operate in connexion with the selvage needle.

We also claim raising the sinkers out of the way of the prongs of the transferring instrument, substantially as set forth, so that the



latter may move along the series of needles without obstruction from the sinkers, substantially as set forth.

We also claim obtaining a pause in the endwise movement of a nut moved by a screw, by causing the screw to move endwise while it is turning in the nut, substantially as set forth.

We also claim the arrangement of the pattern holes of a pattern barrel in a helical line, so that they may be brought in succession beneath the device upon which the pattern pins operate, by a screw, or its equivalent.

We also claim operating the transferring instrument, substantially as set forth, in such manner that its movement is effected partly while the carriage is travelling in one direction, and partly while it is travelling in the opposite direction.

We also claim combining with a travelling series of needles and a rigid bar above them, stationary under supports, over which the needles ride, so that their barbs may be closed by pressure against the stationary bar above them.

No. 22,004.—WALTER AIKEN, of Franklin, New Hampshire.—*Improvement in Knitting-Machines*.—Patent dated November 9, 1858.—By means of the peculiar shaped cam groove each needle is drawn in just before it is moved out, thus insuring the casting off the loops from over the hooks of the needles; and as soon as new loops are formed the needles are moved out, releasing the strain upon the loops around the plates L L, thus dispensing with all friction. By means of the treble motioned cam groove, the vibrating yarn-carrier, and the mechanism to work it, is dispensed with. By means of the fingers K K the yarn is sure to be fed to the selvage needles.

The inventor says: I *claim* the peculiar shaped cam groove, constructed and operating substantially as described.

I also claim the selvage fingers, substantially as described.

No. 22,135.—FREDERICK SCHOTT, of Brooklyn, New York.—*Improvement in Knitting-Machines*.—Patent dated November 23, 1858.—This invention consists in a series of improvements in those kinds of straight knitting-machines in which the needle bed has a movement back and forth, to present the needles, one or more at a time, in regular succession, into an operative relation with one or more feeders or thread conductors and a corresponding number of stitch hooks.

The inventor says: I *claim*, first, the combination of levers G and H, the dog G<sup>1</sup>, spring k, sliding bar I, adjustable stops k<sup>1</sup> k<sup>2</sup>, and the eccentric H<sup>1</sup>, or its equivalent, on the main shaft; the whole operating substantially as described, to effect the movement of the needle bed in one and the other direction alternately.

Second. The two-grooved safety guide K<sup>2</sup> applied in combination with the feeder, to operate substantially as and for the purposes specified.

Third. The needle and stitch hook protector N, applied and operating substantially as set forth.

Fourth. The combination of mechanism to operate the sinker or reliever P, consisting of the cam R on the main shaft, the arm D<sup>3</sup> and



spring  $u^2$  on the rock shaft, the spring  $w$  applied to the reliever bar  $P^1$ , the projections  $v^1 v^2$  on said bar, the stationary inclined projections  $Z$  on the frame, and the stationary inclined planes  $Z^1 Z^2$ ; the whole applied and operating substantially as set forth.

Fifth. The combination of the bar  $X$ , or its equivalent, furnished with teeth 20 20 21 21, and a wedge-like projection 27, the pawl 23 operated by the movement of the needle bed and the stop lever  $W$ ; the whole applied to operate substantially as described, in combination with a belt shipper to stop the machine as soon as any desired number of courses have been knitted.

No. 21,566.—JOSEPH K. KILBOURN, of Pittsfield, Massachusetts, and EDWARD E. KILBOURN, of Norfolk, Connecticut.—*Improvement in Needles for Knitting-Machines*.—Patent dated September 21, 1858.—This improved knitting needle has the same general form as the knitting needles in ordinary use,  $a$  being the barb of the head, which, as usual, when depressed to cast off the stitches, is received into a groove in the stem. Behind this groove there is a secondary groove  $b$ , which is formed in the stem of the needle upon that part thereof which the stitch yarn encircles at the time transference is to be effected, so that the point of the transferring instrument, which is entered in this groove, is by it guided into the stitch upon the stem of the needle.

*Claim*.—The improved knitting needle having a secondary groove in its stem, substantially as set forth.

No. 20,044.—GEORGE CROMPTON, of Worcester, Massachusetts.—*Improvement in Looms*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not wish to be understood as limiting my claim of invention to the special construction specified, as the same end may be obtained by equivalent means.

I *claim* the employment of the two bars for holding up and holding down such of the series of jacks as are not required to be elevated or depressed at the forming of any shed, substantially as described, in combination with the jacks, the pattern cylinder or chain, and the lifter and depresser, substantially as and for the purpose specified.

And I also claim the holder bar, which acts on the ends of the heddle levers to hold them in their elevated or depressed position until the beginning of the operation of opening a shed, substantially as described, in combination with the two bars for holding up and holding down such of the jacks as are not required to be shifted during the operation of opening a new shed, substantially as and for the purpose specified.

No. 20,969.—JOSEPH WELSH, of Philadelphia, Pennsylvania.—*Improvement in Looms*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: As a multiplier of the pattern wheel of looms has been used before, and patented by Barton H. Jenks on the 24th of October, 1854, I do not claim, broadly, increasing the capacity of said pattern wheel by means of a multiplier.



But I *claim*, as an improvement in the said multiplying apparatus, the arrangement and combination consisting of the extra ratchet wheel G and its pinion H, in connexion either directly or indirectly with the pattern wheel ; the adjustable pawls C<sup>1</sup> C<sup>11</sup> on their actuating lever D, and the prolongation o on the usual operating pawl C of the pattern wheel ; the said devices or their equivalents being arranged so as to effect the changes as desired in number at any given point of the pattern wheel during its rotation, substantially as set forth and described.

No. 21,098.—JOSEPH WELSH, of Philadelphia, Pennsylvania.—*Improvement in Looms*.—Patent dated August 3, 1858.—This invention consists in the application of a jointed loom so that it shall be made to operate upon the pattern wheel C, or its equivalent, to reduce its normal capacity, or the number of “shots” which it would otherwise produce or allow, as well as to render the aggregate number of notches divisible.

The inventor says : I do not limit my claim to the described construction, arrangement, or mode of operating the lever L, or its equivalent.

But I *claim* reducing the normal capacity of the pattern wheel or its equivalent, so as to make it perform the functions described, substantially in the manner and for the purpose set forth and described.

No. 21,448.—EDWIN M. SCOTT, of Auburn, New York.—*Improvement in Looms*.—Patent dated September 7, 1858.—This invention provides for the shuttle motion of a loom, and harness motion by the movements of the lay, thus dispensing with the cam shaft and cams and treadles, and simplifying the construction of the loom.

The inventor says : I *claim*, first, operating the shuttle motion by means of the lay, in the manner and for the purpose described.

Second. The combination of the sliding shaft *h*, attached to the lay, the rollers *e e*, or their equivalents, on said shaft, the cam I and its appendages attached to the lay for giving longitudinal motion to the shaft, and the dog *n* attached to the breast beam to operate the cam, the whole applied and operating substantially as described, to actuate the shuttle motion at one side of the loom only at a time by the movement of the lay.

Third. Operating the harness motion by means of the lay in the manner and for the purpose specified.

Fourth. The combination of the swinging frame Q and its dogs *q q*, cams *t t*, and turning plate *w*<sup>1</sup> with the lifting rods *o o*, below the headle frames, the dog *v*, and the lay, the whole operating substantially as set forth to cause the headles to be operated alternately or in proper order of succession.

No. 21,793.—SAMUEL B. CHAFFEE, of Providence, Rhode Island, for Himself and as administrator of the estate of SAMUEL M. CHAFFEE, deceased, late of said Providence.—*Improvement in Looms for Weaving Hair-Cloth*.—Patent dated October 12, 1858.—The operation of this loom is as follows : As the main shaft B revolves, the lathe is caused to beat up and be thrown back by means of the rods D D<sup>1</sup>, connected as shown in the engravings. At the same time the shaft H is revolved



by means of cams I I<sup>1</sup>, rods K K<sup>1</sup>, lever M, rod N, and jack staff O, gives the required motions to the shuttle. The nippers, which form the point of the shuttle, open as they approach the hair cylinder by the pressure of the roller N, and they close when the lathe has beat up by the relief of the pressure. When thus closed they are drawn back, carrying with them the hair for the filling. When sufficiently far back, they are opened to release the hair by the knee e, which may be placed at any point required by the width of the cloth.

The inventor says: I *claim*, first, forming the selvage of hair cloth by means of a set of heddles operating independently of the heddles used in forming the rest of the cloth, substantially as described and shown.

Second. The method described of operating the jack staff by the combination of the cams I I<sup>1</sup>, rods K K<sup>1</sup>, lever M, and rod N, as specified.

No. 21,312.—JAMES BECK, of New York, New York.—*Improvement in Looms for Weaving Skirt Fringe*.—Patent dated August 31, 1858.—This invention consists in cutting the threads forming the skirt fringe on the said rod by combining shears with the said rod, by the operation of which the skirt fringe will be cut against the edge of the said rod as the fabric is moved along during the progress of the weaving operation.

*Claim*.—The employment of shears in combination with the rod around which the fringe threads are carried, substantially as described, for the purpose of cutting the said threads on the rod, as set forth.

No. 22,042.—SAMUEL WALKER, of Roxbury, Massachusetts.—*Improvement in Fringe Looms*.—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, riveting the thread carriers to a reciprocating frame S moving with the lathe, as set forth for the purpose specified.

Second. I claim the guard plates *i* attached to the knife, and operating in the manner substantially as set forth.

Third. I claim depressing each loop of fringe as it is formed by means of the fingers *i*, or their substantial equivalents, for the purpose of preventing them from being entangled and twisted up with the succeeding loops, as set forth.

Fourth. I also claim twisting the weft thread immediately before the loops of fringe are formed by pivoting its spool upon a revolving carriage P<sup>1</sup>, as set forth.

No. 19,719.—RUFUS J. STAFFORD, of Smithfield, Connecticut.—*Improvement in Stop Motion for Hair-Cloth Looms*.—Patent dated March 23, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I wish it to be understood that I do not limit myself to the special construction or arrangement of parts as described.

But I *claim* all merely formal variations performing the same mode of operation by equivalent means.

What I claim is the mode of operation, substantially as specified,



by means of which, in case the hook, nippers, or other instrument used to insert the weft of the cloth, fails to seize and draw in any one hair or other material intended, a disconnexion is in consequence effected between the gear that controls the action of the several sets of heddles, and the source of motion before the relative positions of the several sets of heddles to each other are shifted, and a new set opened, while the other parts of the loom are permitted to continue in operation, substantially as specified.

And I also claim the mode of operation, substantially as specified, by means of which the "signal messenger" (No. 6) during the backward beat of the lay is returned to such a position, and whenever the hair or other material is inserted between the threads of the warp, where it belongs, the gear which controls the action of the several sets of heddles is again put in motion, as set forth.

I also claim the "signal messenger," (No. 6,) constructed, applied, and operated in the manner and for the purpose substantially as described.

No. 19,428.—ZEBULON LYFORD, of Lowell, Massachusetts.—*Improvement in Pickers for Looms*.—Patent dated February 23, 1858.—This invention consists in firmly securing all the outer surface of the material of the picker to prevent its wear and destruction, and in securing the picker cylinder or retainer for the picker material permanently to the picker staff by screws or otherwise.

The inventor says: I *claim* retaining or confining the picker material C by means of the curb B, or its equivalent, to prevent wear and destruction by the picks or blows of the shuttle, substantially in the manner and for the purposes fully set forth.

No. 22,114.—SAMUEL ESTES, of Newburyport, Massachusetts.—*Improvement in Picker Staffs for Looms*.—Patent dated November 23, 1858.—By means of this invention that part of the picker staff which strikes the end of the shuttle and drives the shuttle over the race beam is made to travel in a straight line. In this respect it performs a function common to that of many other picker motions, or other operative mechanism.

*Claim*.—The improved arrangement of the picker staff E with the guide D, with respect to the outer end of the passage *a*, the same being substantially as shown and described.

No. 22,065.—JOHN CRAWSHAW, of Rochester, New York.—*Improvement in Power Looms*.—Patent dated November 16, 1858.—This invention consists in certain means of controlling the take-up motion of a power loom, whereby its operation is rendered perfectly uniform; and also in certain means of governing the let-off motion, whereby the amount of let-off is caused to be always in proportion to the amount of the take-up.

The inventor says: I do not claim operating the take-up motion by means of a pawl attached to a lever operated upon by a stud or roller attached to the lay; nor do I claim reducing the friction on the yarn



beam, as the quantity of yarn upon it is reduced by the use of weights travelling along levers connected with the friction straps.

But I *claim*, first, the lever *i j k*, applied in combination with the cloth roll and with the spring *h* of the take-up lever, to operate substantially as described for the purpose set forth.

Second. The rock beam *I*, its arm *u*, and pawl *v*, applied in combination with the ratchet wheel *t*, screw *r*, and lever or levers *q q*, and weight or weights *s*, substantially as described to move said weights toward the fulcra of the friction strap lever *p p*, as the quantity of yarn on the yarn beam is reduced.

No. 19,073.—STEPHEN O. COLVIN, of Coventry, Rhode Island.—*Improvement of the Let-off Motion in Power Looms*.—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I disclaim the let-off motion of the power loom of Jonathan Knowles, patented April 30, 1850.

I *claim* the roll *F*, or its equivalent, the springs *a a*, and the clever *G*, combined and operating substantially as described, to turn the ratchet wheel *I*, or its equivalent, that moves the yarn beam to let off the yarn only as required by the tension of the cloth and the warp yarn.

No. 19,664.—NEWELL WYLLYS, of South Glastonbury, Connecticut, assignor to Himself and CHARLES COLLINS, of Hartford, Connecticut.—*Improvement in Let-off Motion for Power Looms*.—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, the employment of a movable cap *C*, or its equivalent, as the bearing surface for the cloth on the breast beam of the loom, for the purpose of controlling the letting off the warp yarn from the yarn beam, by the pressure of the cloth on the breast beam, substantially as described.

Second, in combination with the movable cap *C* of the breast beam, or its equivalent, and a friction wheel and friction band applied to the yarn beam, I claim the train of mechanism described, through which the said movable cap, or its equivalent, is operated to control the tension of the friction band, for the purpose of controlling the tension of the warp yarn.

No. 19,698.—WILLIAM J. HORTSMANN, of Philadelphia, Pennsylvania.—*Improvement in Ribbon Looms*.—Patent dated March 23, 1858.—A B C D represents the frame of the loom, E F the lay suspended, G is the shuttle, H I and H<sup>1</sup> I<sup>1</sup> represent the warp threads. The filling thread is carried by the shuttle. P is the breast beam roller over which the fringe passes. K L M N N<sup>1</sup> is a bent piece of iron about  $\frac{1}{4}$  inch square. It is hinged at K so as to permit its rise and fall with the portions of the warp.

*Claim*.—The bent rod K L M N N<sup>1</sup> passing between the two headings of the trimmings or fringes and forming a back or edge over which the filling is worked, substantially as described.



No. 22,420.—A. F. GIBBONEY, of Union Township, County of Mifflin, Pennsylvania.—*Improvement in Shuttle Boxes for Looms.*—Patent dated December 28, 1858.—The nature of this invention consists in lengthening the fly A the full length of the shuttle box B, hinging at the fulcrum C, and attaching to the inner end of the fly A a half swell D, to be properly adjusted by the set screw E.

*Claim.*—The half swell D on the end of the fly A to be operated on by the picker F, as set forth.

No. 21,515.—ROBERT PILSON, of Laurel, Maryland.—*Improvement in Temples for Looms.*—Patent dated September 14, 1858.—The nature of this invention consists in dispensing with the usual roller case or box, and instead thereof employing an adjustable extension connecting suspension bar, on each end of which is an independent tubular sheath or receptacle for holding the pin roller, all of which devices produce what may be termed a double acting compensating spring temple, which has a free vibration to and fro, horizontally, as well as a yielding up and down motion simultaneously.

*Claim.*—The construction of temples for looms, wherein is employed an adjustable extension compound connecting bar or rod composed of the spindle bars or sections  $m\ 2\ m\ 2\ m\ n$  and the splice lengths  $o\ o\ o\ o$ , the detachable independent tubular sheaths  $P\ P\ q\ r\ s$ , Fig. 3, the sliding yielding brackets or bearings  $I\ I\ I\ J\ J\ J$ , spring holders  $b\ b$ , and springs  $e\ e\ e$ , the whole operated as shown, and whereby a double yielding action of the temples is brought about, and for the purposes substantially as set forth and described.

No. 19,270.—ELISHA WATERS, of Troy, New York.—*Improvement in Manufacturing Angular Paper Boxes.*—Patent dated February 2, 1858.—The nature of this improvement will be understood by reference to the claim and engraving.

*Claim.*—The construction of angular boxes of paper board by cutting the board into strips for the sides and pieces, for the tops and bottoms, forming the upright angles one by one, by pressing the strips between angular dies without cutting, creasing, or scoring the board, and finally cementing the parts together, substantially as set forth, thus producing by the use of only a single set of the dies, and with the least waste of the paper board, any required number of different sizes of many sided boxes, with smooth, solid, upright corners, as specified.

No. 19,045.—STEPHEN ROSSMAN, of Stuyvesant, New York.—*Improvement in Machinery for Manufacturing Paper.*—Patent dated January 5, 1858.—The nature of this invention is shown by the claim and engravings.

I am aware that the use of guide rollers in various relations to the main cylinders is common in paper machinery. Examples are seen in the patents of G. W. Turner, January 27, 1852, and D. G. Jones, December 11, 1855. I make no claim to anything contained in those devices. But, to the best of my knowledge and belief, it is new, in



the manufacture of paper, to lift the web from the press roll, as I have described.

I *claim* lifting the web of paper from the upper press roll *c*, by means of a lifting roll *F*, arranged and operating as set forth.

No. 21,004.—JOSEPH C. KNEELAND, of Northampton, Massachusetts.—*Improvement in Machinery for Piling Paper*.—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* a combination composed of the following elements: First, a carrier *E* made of endless belts and rollers, or their equivalents, and arranged substantially as specified; second, holders or holding mechanism, consisting of a rod or roller *G*, one or more flexible strips *H H* or bars *I I*, or equivalent devices; third, mechanism to keep each roller of the carrier from revolving while such roller is drawing the paper along over the table; fourth, mechanism to cause the roller to revolve and discharge the sheet of paper at the proper time, as specified; fifth, a table *L*, or its equivalent, to receive the paper from the carrier.

And in combination with the above described laying mechanism or combination of mechanical elements, I claim one or more bars or guards *g<sup>1</sup> g<sup>1</sup>*, arranged substantially as specified, and so as to prevent the sheet of paper while being carried forward from being drawn against the rear edge of the pack on the table, and being torn or injured thereby.

No. 21,768.—JOHN McMURRAY and ROBERT McMURRAY, of New York, New York.—*Improvement in Constructing Frames for Wire-Cloth Paper-Making Cylinders*.—Patent dated October 12, 1858.—The object of this invention is to obtain a very rigid frame, one that will retain its form so as to insure a perfectly cylindrical wire-cloth surface. It is designed to be used in paper-machines, and in other cases where wire-cloth cylinders are employed, and where it is necessary to have the wire-cloth retained in a perfectly cylindrical form, in order to perform perfectly the desired work.

The inventors say: We are aware that a wire *j* has been wound spirally around longitudinal bars in order to form a cylindrical surface or bed to a frame to receive the wire-cloth, and we do not claim separately said wire.

But we *claim* the spiral wire or rod *B* and longitudinal rods *e*, connected to suitable heads *A*, provided with journals *c<sup>1</sup>*, in connexion with the spiral wire *j*, the whole being arranged substantially as and for the purpose set forth.

No. 21,008.—THOMAS LINDSAY, of Westville, Connecticut, and WILLIAM GEDDES, of Seymour, Connecticut.—*Improvement in Paper-Making Machines*.—Patent dated July 27, 1858.—This invention consists in having the “lip” or basin *J* which conducts the pulp from the vat to the endless wire apron *B* constructed of two parts, so arranged that one part may slide over the other, and having said parts connected with the “deckles” *C C*, which, as well as the deckle-



straps, are by a novel mechanism rendered susceptible of lateral adjustment.

The inventors say: We do not claim the gauge K, nor do we claim, separately, the adjustable deckles C C, for they have been previously used.

But we *claim* the expanding lip or basin J, in combination with the adjustable deckles C C and straps D, the above parts being arranged to operate as and for the purpose set forth.

No. 20,355.—HENRY LOWE, of Baltimore, Maryland.—*Improvement in Preparing Paper Pulp from Reeds*.—Patent dated May 25, 1858.—The claim describes the nature of this invention.

*Claim*.—The described process of making paper pulp from reeds by first disintegrating the reeds by boiling in a solution of caustic soda, accompanied by agitation, and then reducing them directly to pulp without reducing to half stuff by the machine technically called the old rag engine.

No. 22,401.—CHARLES MARZONI, of New York, New York, assignor to J. GANDOLFO, of said New York.—*Improvement in the Manufacture of Paper Pulp from Wood*.—Patent dated December 21, 1858.—The nature of this invention consists in the abrasion or tearing of the woody fibre from the surface of the wood, in combination with the use of steam and of hot water during the process of converting the wood into minute particles adapted to its direct transformation into a suitable pulp for the manufacture of paper.

The inventor says: First, I *claim* the use and application of the peculiar stone called “adamantine,” described, when used as a means of tearing the woody fibre into a state suitable for pulp for paper, as described, by rotation or any other substantially similar manner.

Second. I do not claim steaming the wood, nor the use merely of hot water.

But I claim the combining the use of the hot water at the boiling point, or 210° Fahrenheit, with the stone in rotation while acting upon the wood simultaneously and continuously, so as that the hot water and flakes or particles of woody fibre immediately become united into pulp.

Third. I claim the apparatus consisting of the cover or box E, the boxed openings therein 1 2 3 4, and arms, rods, and weights 7 8 9, by which the blocks of wood are fed and held to the surface of the stone.

No. 20,277.—JOSEPH JORDAN, Jr., of East Hartford, Connecticut, and THOMAS EUSTICE, of Hartford, Connecticut.—*Improvement in Machines for Grinding and Sizing Paper Pulp*.—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We *claim*, as our improved machine for the manufacture and sizing of pulp, that it is constructed of a single conical grinder and outer shell, and with pipes for the introduction of the rags and the size, and the eduction of both arranged with



reference to the axis and ends of the grinder, substantially in manner, and so as to enable the grinder to operate to reduce the rags to pulp and mix the sizing therewith, as explained.

No. 20,294.—MARTIN NIXON, of Philadelphia, Pennsylvania.—*Improvement in the Preparation of Fibre for Paper Pulp*.—Patent dated May 18, 1858.—The bottom angle of the tub beneath the floor *b* is occupied by a steam pipe *c*, perforated at intervals of about two feet with apertures about one-eighth of an inch in diameter, to permit the escape of jets of steam toward the centre of the tub; *d* is a perforated cover which rests on the mass of straw; *e* is a pipe extending axially from beneath the floor *b* to a short distance above the cover *d*, where it may be surmounted with an inverted bowl *f*, or with a centrifugal spreader or vase *g*; *i* is a pipe discharging a current of steam into the mouth of the axial pipe *e*, which serves to impel a portion of the alkaline solution upward through said pipe, and deliver it, in a heated state, in a continuous spreading shower upon the top of the straw, from whence it percolates downward through the mass of straw. At the same time, the steam which escapes into the space beneath the floor *b* rises through the straw.

The inventor says: I am aware that a process has existed whereby the alkaline solution is, by the agency of steam, heated in a separate vessel and delivered on top of the straw in intermittent showers. This I do not claim.

Neither do I claim any process in which cutting of the straw is a pre-requisite.

But I *claim*, first, the described manner of applying the steam, whereby the solution is automatically and continuously delivered on top of the straw, as set forth.

Second. The process of boiling whole straw by the combined action of an upward current of steam and a downward current of alkaline solution, permeating the mass, and acting upon it in conjunction, substantially in the manner and for the purpose explained.

No. 21,161.—HENRY WOELTER, of Heidenheim, Wurtemberg, Germany.—*Improvement in Reducing Wood Fibres to Paper Pulp*.—Patent dated August 10, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I make no claim in this application as to the originality of the invention of using wood pulp for paper-making, although it might be shown that this even emanated from me; nor do I claim broadly the employment of mechanical agents in combination with water or other suitable liquids, for the purpose of separating and obtaining the fibres of wood.

I also disclaim the various parts and mechanical devices constituting my machine when separately considered, and when not combined as set forth.

But I *claim*, first, the particular arrangement, construction, and combination of the machinery, or the mechanical expedients employed, as herein specified, for reducing blocks of wood, or producing wood pulp, by feeding them up automatically to a rotating grind or millstone,



in connexion with the peculiar manner of applping or locating said blocks upon the circumference of the stone, or on a portion of its circumference, by holding them behind each other in a position and direction essentially the same as described and set forth.

Second. The employment and the combination of a series of perforated and rotating cylinders with the reducing expedient, when contracted and connected between themselves, in the manner herein specified, by surrounding troughs and communicating channels or reservoirs, all made to operate as set forth, and for the purpose of assorting the fibres when separated from the wood in the modes described, rendering the pulp fit to be formed into paper of different qualities.

No. 20,884.—HENRY LOWE, of Baltimore, Maryland.—*Improvement in Paper Stock from Reeds*.—Patent dated July 13, 1858.—This invention consists of paper stock made from reeds, (*Arundinaria Macrosperma*, *Michaux*,) the same being intended as a substitute for rags, ropes, and other fibrous material.

*Claim*.—The prepared reed fibre, or new article of manufacture above described, as a substitute for rags, ropes, and other fibrous materials, for the manufacture of paper; said reed fibre or paper stock being prepared substantially as set forth.

No. 20,020.—ADOLPHE NICÓLAS MATTHIEU, of Paris, France, assignor to M. J. A. GAJET, of New York, New York.—*Improvement in the Manufacture of Pasteboard*.—Patented in France, April 13, 1855; Patent dated April 20, 1858.—The claim of the inventor explains the nature of this invention.

The inventor says: I do not claim the employment of leather in making pasteboard, &c., when the same is made to pass through a process of maceration with lime or like substances, or when leather scraps are mixed with resinous or glutinous compounds to cause them to adhere, for all such modes are too expensive for practical use.

But I *claim* manufacturing pasteboard or paper of leather shavings by simply washing and grinding, and mixing the same with vegetable fibres, without the addition of other manipulation or material, by which I make a cheap and merchantable article, when heretofore the process was too expensive for its profitable use.

No. 20,766.—SETH PECK SPENCER, of Lancaster, Pennsylvania, assignor to Himself, S. S. SPENCER, and HARRIS BOARDMAN, of said Lancaster.—*Improvement in Drawing Rollers*.—Patent dated June 29, 1858.—This invention consists in a certain construction of the drawing rollers which not only insures a much more perfect rolling, but reduces the cost of the rollers, and also the cost of keeping them in repair.

*Claim*.—Providing the lower roller with grooves *d*, and the upper roller with leather collar *c*, the said collar *c* being arranged to run into the grooves *d*, substantially as and for the purposes described.

No. 19,623.—GARDNER G. CLARK, of Providence, Rhode Island.—*Improvement in Calender Rolls*.—Patent dated March 16, 1858.—The



nature of this invention consists in a cylinder roll with a hair surface. The engraving is a cylinder composed of a metallic shaft A A, and two heads B B, between which head is compressed animal hair C which forms a smooth working surface.

*Claim.*—As a new article of manufacture a calender roll with its working surface formed of animal hair, in the manner and for the purpose specified.

No. 21,238.—NEWTON ADAMS, of Lansingburg, New York.—*Improvement in Machinery for Making Rope.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the combination of a revolving flyer containing a capstone F and reel G, with the revolving strand flyers B B, revolving around the laying spindle C, substantially for the purposes set forth.

Producing and controlling the rotary motion of the strand spindles or flyers, on their own axis by means of the stationary or moving belt L, acting on pulleys on the said spindles or flyers, the pulley N, worm wheel U, and stationary moving endless screw z, the whole being combined to operate substantially as set forth.

No. 19,133.—WILLIAM COUTIE, of Troy, N. Y.—*Improvement in Rope Machines.*—Patent dated January 19, 1858.—This invention consists chiefly in certain arrangements of the well known parts of the “sun and planet” rope machine. One object of these arrangements is to prevent the great development of centrifugal force which is, at high speed, so injurious to the common “sun and planet” rope machine, and thereby to enable the machine to be driven with safety at a higher velocity. Another object is to keep the machine always in balance, and to prevent the injurious action which in the common “sun and planet” machine results in the machine getting out of balance by reason of unequal quantities of strand in the several flyers.

*Claim.*—Arranging the strand flyers apart from the strand spindles, with their axes in the same planes as the axis of the laying spindle, but intersecting the latter axis at right angles, and with their journals in bearings in the sides of a frame constituting part of the laying spindle, and gearing said flyers with the strand spindles, the planetary arrangement of which is retained by mitre gears, or their equivalents, by which the said flyers are caused to rotate with the laying spindles, so as to cause no twist but what is produced by the planetary strand spindles, in the same manner as in the ordinary “sun and planet” machine, substantially as described.

No. 22,150.—J HN STEWART, of Brooklyn, N. Y., assignor to CHARLES WALL, of said Brooklyn.—*Improvement in Machines for Tarring Rope-yarn.*—Patent dated November 23, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—The employment within the tar vat of one or more series of sheaves or conductors, over or around which the yarns are bent in the manner described, to open their fibres and make them pass and



return in an opposite direction through the tar, for the purpose set forth.

No. 19,015.—DAVID W. CLARK, of Bridgeport, Conn.—*Improvement in Sewing-Machines*.—Patent dated January 5, 1858.—The nature of this invention will be understood by an examination of the claim and illustrations.

*Claim*.—First. Feeding the cloth in sewing-machines by means of a rocker J, arranged and operating substantially as described.

Second. The employment of a hinged slide Q to flatten and hold the loop, substantially as and for the purposes set forth.

No. 19,059.—GEORGE FETTER, of Philadelphia, Pa., assignor to Himself and EDWARD JONES, of said Philadelphia.—*Improvement in Sewing-Machines*.—Patent dated January 5, 1858.—This improvement consists in so attaching a looper to a spindle that the former may be readily adjusted to the latter, the spindle being allowed to turn so as to accommodate itself to the lateral movement of the looper. The looper is so confined with a small finger that it may be readily adapted to the formation of either a double or single chain stitch.

*Claim*.—First. The combination of the looper R with the spindle N, when the former is rendered adjustable to the latter in the manner described, and when the spindle is allowed to turn so as to accommodate itself to the lateral movement of the looper.

Second. The combination of the finger *p* with the looper *r*, in the manner and for the purpose specified.

No. 19,080.—ALEXANDER DOUGLASS, of New York, N. Y.—*Improvement in Sewing-Machines*.—Patent dated January 12, 1858.—This invention consists in the mode of constructing and combining one part of a cone chuck, a spring, and an adjusting nut, by which the apparatus is rendered convenient to use and less liable to be lost.

The inventor says: I am aware that the application of conical chucks and springs, adjusted by a set screw, have been before used for regulating the tension of the thread in sewing-machines.

I am also aware that the inner chuck has been made movable upon the shaft, and a spring made to press upon that, to control the tension of the thread, instead of upon the part of the chuck upon the outer end of the shaft, which arrangement avoided the necessity of removing the spring each time that a fresh spool was put on, at the expense, however, of a considerable multiplication of parts. I therefore make no claim to the conical chuck, or broadly to its combination with springs and an adjusting screw, for regulating the tension of the thread.

The particular improvement which constitutes my invention, and which I *claim*, is the combination of the part *d* of the chuck, the spring *e*, and the nut *f*, when united as one piece, substantially as described, and for the purposes set forth.

No. 19,072.—DAVID W. CLARK, of Bridgeport, Conn.—*Improvement in Sewing-Machines*.—Patent dated January 12, 1858.—The nature and object of this invention is explained by the claim and engravings.



The inventor says: I *claim*, first, feeding the cloth or fabric in sewing-machines by a movement of the table upon which the fabric is sustained, as described.

Second. Placing the loop in the position to receive the needle and thread by a movement of the table, as set forth.

Third. The employment of a wiper J, arranged and operating in combination with the reciprocating table, substantially as shown, for the purpose of placing and holding the loop in position to receive the needle and thread.

No. 19,129.—DAVID W. CLARK, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated January 19, 1858.—This invention relates or pertains to that class of sewing-machines in which the common “chain stitch” is formed. The claim and engravings give the reader an idea of the nature of the invention.

*Claim*.—Placing and holding the loop in position to receive the needle by means of a slot *x*, which runs or extends at right angles to the direction of the feed, and is notched at its centre for the passage of the needle, substantially as described.

No. 19,171.—AMOS H. BOYD, of Saco, Maine, assignor to OLIVER D. BOYD, of Saco, Maine.—*Improvement in Sewing-Machines*.—Patent dated January 19, 1858.—The nature of this improvement consists in introducing distinct lateral and perpendicular movements of the shoe, by which the performance of its exact functions are made certain on every kind of work. The lifting and depressing movement being strictly perpendicular and the feed motion strictly, the operator is enabled to use a flat or level shoe by which the cloth is held firm about the needle a sufficient space to prevent its being strained and forced through the slot in the bed piece by the action of the needle when passing through the cloth.

The inventor says: I *claim* the combination of the lever M, with the shoe and spring 4 for giving the shoe a vertical reciprocating movement.

Also, in combination therewith, the slide T for giving the horizontal reciprocating movement to the shoe, (when the shoe is to be operated in the manner described,) arranged as set forth.

No. 19,141.—DANIEL HARRIS, of Boston, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated January 19, 1858.—This invention consists in an improved manner of regulating the delivery of the thread from the spool to the needle by a tension clamp located at any convenient point. A denotes a screw pin or spindle applied on top of the goose neck. B is a piece of India rubber tubing placed on the spindle and resting upon a base or plate C, or directly upon the goose neck, or plate to which the spindle may be applied. Upon the top of this tubing a washer D, made large enough in diameter to cover the tubing B, is placed.

*Claim*.—The specific device described for applying tension to the thread during its passage from the bobbin or spool to the needle, that is, causing it to run through the eye of the spindle and between two



disks of parchment, when said disks are placed upon the spindle between two india rubber tubes or cylinders, which are liable to be compressed in the direction of the axis of the spindle to any degree of intensity required, substantially as set forth.

No. 19,155.—JAMES and AMOS W. SANGSTER, of Buffalo, New York — *Improvement in Sewing Machines*.—Patent dated January 19, 1858.—A is the feeding bar which is attached to the frame work by a screw at the point G. Its upper part is so made of elastic metal as to spring backwards. The spring bar F is connected to the feed bar A by a small rod H. I is a nut for fastening said rod. B is a bar which terminates in an elastic foot piece, for the purpose of holding the cloth firmly down to the plate J.

*Claim*.—The looper A<sup>1</sup>, in combination with the plate D and cross piece Z, substantially as described, for the purpose of catching the loop and causing it to be formed round the looper A<sup>1</sup>, and held open in the aperture *v* for the reception of the needle.

No. 19,135.—M. DIMOCK and N. RIXFORD, of Mansfield Centre, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated January 19, 1858.—In the under side of the bed plate a groove *e* is cut to receive the slide K, which is accurately guided by the two guide pieces *i* and *n*, or by the sides of the groove *e*. The object of this slide is to carry the looper *r s*, and also the stud *u* and spring *z*, by which the looper is adjusted and vibrated. The looper consists of two separate pieces, namely, the pendulum *r* and the beam *s*, both of which are fastened to plate K by pin *t* in such a manner that their points play freely from right to left and left to right.

The inventors say: We do not claim the looping apparatus patented by W. Lage, June 30, 1857.

But we *claim* the looper *s r*, in combination with the sliding plate K and the loop guide *f o*, when arranged in the manner substantially as set forth, and for the purpose specified.

No. 19,285.—BENJAMIN J. ANGELL, of Attleborough, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated February 9, 1858.—This machine belongs to that class which form a chain stitch with a single thread, by means of the ordinary machine needle combined with a stitch hook which catches and spreads the loop, and carries the same beneath the needle in such a manner that the loop formed by the successive descending stroke of the needle shall pass through the first loop when the stitch hook is withdrawn preparatory to catching up the second loop, being drawn up against the under side of the cloth by the descent of the needle, this forming a stitch.

The inventor says: I am aware that a method of causing the cloth to progress regularly, in feeding, by the joint action of the surfaces between which it is clamped, has been previously patented by Allen B. Wilson. I would not, therefore, be understood as claiming such device for this purpose.

I *claim* the combination of the grooves S S, of the presser with the barbs *t t t t*, of the feed bar, and the surfaces *a a* and *h h*, with



the thumb screw  $S^1$ , arranged and operating substantially and for the purpose as set forth.

No. 19,409.—DAVID W. CLARKE, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated February 23, 1858.—This improvement is intended for the sewing and ornamenting of every description of cloth or other fabric. A  $A^1$  represents the frame of the machine. B is the needle holder. This consists of a flat slide having bevelled edges, and moving up and down between grooves in the frame  $A^1$ . C, the needle, is inserted in the lower part of the needle holder B and held there by means of a screw  $a$ .

The inventor says: I *claim*, first, the employment of the device which feeds the cloth to flatten, hold, and place the loop in proper position for receiving the needle.

Second. Flattening and holding the loop by means of a slide I, substantially as set forth.

No. 19,439.—ABNER N. NEWTON, of Richmond, Indiana.—*Improvement in Sewing-Machines*.—Patent dated February 23, 1858.—C is a lever, by means of which motion is communicated to the needle bar I and also to the lever D. It is pivoted in upright bearings F F, and receives the lever D through a long mortise. The upper end of the lever D is curved in order to adapt itself to the shape of the slot  $s$ ; this slot receives a pin  $p$  from lever C, and nearly coincides with the motion of pin  $p$ .

The inventor says: 1st. I *claim* the slotted lever D in combination with mortised lever C, for the purposes set forth.

2d. I claim the combination of levers C D with the needle bar I, in the manner described.

No. 19,535.—AMOS W. SANGSTER, of Buffalo, New York, assignor of VICTOR M. RICE, JAMES SANGSTER, and ELIZA REMINGTON, of said Buffalo.—*Improvement in Sewing-Machines*.—Patent dated March 2, 1858.—The stitch is taken as follows: The point of the needle, when descending, passes or pushes the plunger C downward, and throws the looper W in the position shown in figures. Just after the needle commences to ascend, the looper is thrown through the loop and into the position shown in figures, and, as the needle continues to ascend, the looper rises with it until its point passes into the slot Z on the under side of the plate U, and assumes the position of fig. 2, when the loop is drawn up and spread, fig. 2, ready for the needle to pass through it and form another stitch.

The inventor says: I do not claim imparting a feeding or forward motion to the cloth or other material while being sewed, by means of a wheel which moves the cloth while revolving, as that has been done before.

But I *claim* the specific mechanism described, consisting of the framework, slide, and toggle joint, designated by the letters  $H^4$   $I^2$  I I L K M  $M^1$  N O and R, arranged and operating in the manner and for the purpose specified.



No. 19,532.—JOSHUA GRAY, of Medford, Massachusetts, assignor to Himself and GEORGE O. BRASTOW, of Somerville, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated March 2, 1858.—The nature of this invention consists in an improved device for distending the loop to insure the entrance of the needle.

*Claim*.—The described device for distending the loop, consisting essentially of the sliding bar B and the vibrating arms A and c, operating in the manner substantially as set forth.

No. 19,612.—CHARLES RAYMOND, of Bristol, Connecticut, assignor to WILLFORD H. NETTLETON, of said Bristol.—*Improvement in Sewing-Machines*.—Patent dated March 9, 1858.—The claim and engraving will explain the nature of this invention.

The inventor says: I wish it to be understood that I do not claim fixed and moving looping instruments, over both of which the thread is drawn to spread the loop for the needle to pass through, as this has before been used; but I am not aware of any previous device in which the loop has been taken and directed to a double inclined spreading plate, on the sides of which the loop is spread by the drawing up of the needle thread, thereby insuring the proper entrance of the needle into said loop in its next descent, and using but a very short loop close up to the bed supporting the material being sewed, at the same time the instrument, taking the loop from the needle, performs no duty in spreading the loop, but simply directs it to the stationary double inclined spreader, as specified: therefore—

I *claim*, first, the combination of the thread guide 3<sup>1</sup>, clamping surface 3, and the eye 2, on the upper end of the needle bar, when said thread guide is fitted to move with the needle bar, and regulated by the stop *h*, or its equivalent, so as to measure off the amount of thread for each stitch, substantially as specified.

Second. I claim a stationary double inclined spreading plate *n*, over the sides of which the loop is drawn and spread when combined with a looping point, to direct the loop of needle thread to said spreading plate as it draws up, as specified.

No. 19,660.—JOSEPH E. HENDRICK, of Brooklyn, New York, assignor to Himself and WILLIAM HOLMES, of said Brooklyn.—*Improvement in Sewing-Machines*.—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, concentric rotary feeding pad, vibrating upon an axis which yields to pressure in an upward direction, giving a pressure upon the cloth, which is entirely subject to the tension of the spring, or other device, by which the pad is forced down upon it, without being subjected to the action of a toggle joint, as set forth.

Second. The combination of an adjustable spring friction brake with a rotary thread carrier, consisting of the shaft *o*, disk P, and points or pins *n n*, or their equivalents, as set forth.

No. 19,662.—SIDNEY PARKER, of New York, New York, assignor to Himself, LEONARD WESTBROOK, and HUGH HERRINGSHAW.—*Improvement*



*in Sewing-Machines.*—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim, generally, the communicating of a reciprocal motion to the needle stock for the purpose of sewing by machinery.

Nor do I make claim to the use of a stationary bobbin resting in a loose socket, over which the loop of the upper thread may be carried to form a stitch without a shuttle.

But I *claim* the combination and arrangement of the horizontally reciprocating pronged looper *m n*, and the bobbin, when constructed and operating in the manner substantially as described.

No. 19,665.—JOSHUA GRAY, of Boston, Massachusetts, assignor to Himself and T. B. MACKAY, of said Boston.—*Improvement in Sewing-Machines.*—Patent dated March 16, 1858.—To one side of the arm I, which projects down from the plate C, is attached by a screw and nut *l*. A block *p* is attached by a screw and slot at *r* a bent bar or arm L, the end of which is bent over and formed into a pointed hook at S. This bar plays between a block *t* and the plate C, to which the block is attached. The motion is imparted to the hook by the cam block M, which is attached to the lower branch of the arm D, and is formed the advancing edge *x* of the block bearing against the pin *v*, and giving the forward motion to the hook.

The inventor says: I am aware that the angularly slotted plate has been employed in combination with other devices in the patent of Daniel Harris, for operating the feed in sewing-machines. I therefore do not claim this device. My method avoids the necessity of using any intermediate device to operate the feeding foot.

But I *claim*, first, the arrangement of the adjustable slotted plate H in the manner described, and for the purposes specified.

Second. The arrangement and combination of the double cam block M with the looper L, substantially as described and for the purpose specified.

No. 19,684.—FAYETTE S. COATES, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated March 23, 1858.—The nature of this improvement will be explained by reference to the claim and engravings.

The inventor says: I am aware that there are many devices for opening or spreading the loop in single thread sewing-machines; therefore I do not claim as new the expansion or spreading the loop in such machines.

But I *claim* the combination of the spring 8 with the feed K and hook I, for the purpose of expanding the loop in sewing machines, as set forth.

No. 19,732.—DAVID W. CLARK, of Bridgeport, Connecticut, assignor to H. L. CLARK, of Fairfield, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated March 23, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the employment of an adjustable



guide N, constructed and arranged substantially as described, for the purpose of guiding the needle J and its thread, stripping the loop of needle C, and placing the loop of needle J.

Second. The combination of spring O with guide N for holding the needle J within the groove of the guide, substantially as described.

Third. The employment of a swinging plate P, serving as a loop stop for both stitches.

No. 19,723.—JAMES SANGSTER and AMOS W. SANGSTER, of Buffalo, New York.—*Improvement in Sewing-Machines*.—Patent dated March 23, 1858.—The looper may be operated without the use of the spiral spring P, and without the operation of the needle for that purpose in "its bed place." A is a crank connected to a rod B, which is fastened to the lever C. This lever works on a pivot at D, and the end E operates the loopers.

*Claim*.—The looper, when the several parts thereof are constructed and arranged to operate, in relation to each other, to the needle and thread, substantially as set forth.

No. 19,793.—O. L. REYNOLDS, of Dover, New Hampshire.—*Improvement in Sewing-Machines*.—Patent dated March 30, 1858.—This invention relates to that description of sewing machine in which a needle and looper are employed with a single thread to form the chain stitch. It consists principally in a device termed the loop distender *t*, operating in connexion with a looper *l* of suitable construction, for the purpose of distending the loop in a proper manner and to a proper extent, to insure the entrance of the needle.

*Claim*.—The loop distender *t*, operating by and in combination with the shouldered looper *l*, substantially as and for the purpose set forth.

No. 19,823.—ABRAHAM BARTHOLF, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated April 6, 1851.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the construction of the taper portions of the shuttle and the forked portion of the shuttle driver, which acts upon it to drive it back, in a manner substantially as described, so that the said portion of the driver bears upon the top and bottom of the shuttle with a tendency to draw it away from, or prevent it from hugging, the side of the race way.

And I also claim giving the two claws *i i'*, which produce the backward motion of the shuttle, a relative form, substantially as described, by which the shuttle is prevented hugging the bottom of the race-way, as set forth.

No. 19,876.—ELLIOT SAVAGE, of Berlin, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* forming a chain stitch seam by the looper, constructed and arranged in the manner described, when operated in combination with an eye-pointed needle, so that the looper shall enter the open loop as the needle rises, and, while resting on the



bed plate, securely hold the first loop open in the path of the needle and release the loop when the needle shall have entered, to form a new stitch, as set forth.

I also claim the specific device herein described for regulating the tension of the thread in sewing machines, consisting in a spool-supporting bracket constructed as specified, and arranged in relation to and operating in connexion with a screw-threaded standard in such a manner as to ascend or descend when rotated around and upon said standard, for the purpose of causing the thread to be wound around said screw until the requisite degree of tension is obtained.

No. 19,903.—J. E. ATWOOD, J. C. ATWOOD, and O. ATWOOD, of Mansfield Centre, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated April 13, 1858.—The operation of this machine is as follows: As the needle descends through the cloth its point will not fail to enter the die, and it will force itself through the die without difficulty, as the spring *h* is not necessarily very strong, for the pressure of the looper *j* against the needle *H* pushes it against the back of the die and towards the part *b*. The principal pressure is towards the back of the die, and though this is met by both parts *b* and *d* of the die, it has little tendency to force the movable part *d* away from *b*. The looper is stationary in the position shown in the figs. 1 and 4 till after the needle has completed its descent and has commenced to rise and leave the thread slack on that side which is exposed at the slit *v* which is formed by the junction of the cavity *c* with the face *g* of the die; but as soon as the needle has arisen a little way the looper begins to move on the pin *m* and crosses the slit *v*, thus passing between the needle and the slack thread.

The inventors say: We do not claim the use of a die to guide the needle and hold it steady against the action of the looper.

But we *claim* the arrangement of the needle die, the looper, and the stationary finger in such relation to each other as herein described for the purpose of extending the loops in a position for the needle to enter them without failure.

No. 19,979.—CHARLES FREDERICK BOSWORTH, of Petersham, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated April 20, 1858.—During the vibration of the lever or rocker *d*, the feed hand *g* is caused to project slightly above the surface of the sewing table, when it will exert a gentle pressure against and slightly lift the yielding pressure pad, the slot through which the feeder passes being arranged immediately underneath the pressure pad, and the cloth to be sewed is introduced between the pressure pad and the table, so as to cover the slot, as in other sewing machines where the feed passes through the table and is alternately worked upon by the feeder for the purpose of being shoved along the proper distance after each stitch.

The inventor says: I *claim* the jointed rocking feed hand constructed and arranged as described, so as to play freely between and upon two fulcra when operating from beneath the sewing table, in



combination with the pressure pad above said table, in the manner and for the purpose specified.

I also claim regulating the angle of vibration of the feed hand constructed, arranged, and operating as herein described, by means of two stops, one of which is so adjustable as to allow the fulcrum upon which the said feed hand moves to be raised or lowered, thereby diminishing or increasing the feed at pleasure, substantially as set forth.

No. 20,175.—E. HARRY SMITH, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated May 4, 1858.—The nature of this invention consists in arranging cranks and connexions therefrom to the needle and shuttle in such a manner that the shuttle is caused to move through the loop with accelerated velocity while the needle is retarded, and *vice versa*.

*Claim*.—Arranging the cranks and connexions to the needle and shuttle in substantially the manner set forth, whereby the differential movements are imparted to the needle and shuttle in the alternating manner described.

No. 20,471.—CHARLES A. SHAW and JAMES CLARK, of Biddeford, Maine, and DAVID T. GIVEEN, of Saco, Maine, assignors to CHARLES A. SHAW and JAMES CLARK, aforesaid.—*Improvement in Sewing-Machines*.—Patent dated June 1, 1858.—The looper 2, by being mounted in rests and made to pass through the arc of a circle, at some distance from the screw 4, as the centre of motion, it is enabled by this and its rotary movements, to pass the needle E without coming in contact with it, and also to tighten and securely fasten the stitch, while at the same time the thread is partly drawn from the spool for the next stitch. When the needle bar *d* is elevated the rod *j* is also raised from the cloth, taking up the toe of the pad *i* by means of the bar *u*, and releasing the work.

The inventors say: We do not claim the wheel 21, cam 14, lever 13, slide 1, spring 20, slot *o*, needle *e*, or spool 19, or dog 6, as the same are in common use and not patentable.

We also disclaim the use of two threads and the stitch formed by their combination, in the manner described.

Also all and any part or parts of the mechanisms described when those parts are in and of themselves separately considered, which are not of our invention.

But we *claim* the combination of the looping mechanism described, whereby the forward and backward, lateral and reciprocating rotary movements are given to the looper for the purpose described and specified.

No. 20,413.—MARTIAL DIMOCK, of Mansfield, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated June 1, 1858.—The grippers *a* consist of a couple of bows of spring steel attached to a stock or bar *a*<sup>1</sup>, which is so set under the bed of the machine as to receive action to give the necessary reciprocations by a cam *b* on the main shaft.



*Claim.*—The gripping apparatus, operating substantially as described, in combination with the needle and the thread, for the purpose of drawing the loop into the path of the looper, as set forth.

No. 20,481.—DAVID W. CLARK, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated June 8, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim.*—Regulating the extent of the feed by expanding or contracting the rear end of the lever E, substantially as described.

No. 20,531.—AMOS W. SANGSTER, of Buffalo, New York, assignor to V. M. RICE, JOEL THAYER, JAMES SANGSTER, and ELIZA REMINGTON, of said Buffalo.—*Improvement in Sewing-Machines.*—Patent dated June 8, 1858.—In figure 2, R is the shuttle with the hook 7 fastened to it. S is a side view of the case or shuttle holder. It is attached to the shuttle carrier or arm U by the screw G<sup>5</sup>. In figure 3, P is a brace or cross piece between the rods V<sup>5</sup> and V<sup>6</sup>. The pin passes through the shuttle carrier U into the opposite part of the cross piece; it is used for a fulcrum or axle, on which the arm U vibrates.

The inventor says: I do not claim the hook detached from the shuttle, because I believe this has been made before; nor do I claim to have conceived the idea of making the rough or serrated foot piece, because serrated foot pieces are now in common use.

But I *claim*, first, the spring thread carrier K, in combination with the stationary arm L and feeding mechanism operating together in the manner and for the purpose specified.

Second. The combination of the shuttle R and hook 7 fastened together, or their equivalents, operating substantially in the manner and for the purpose described.

Third. The shuttle carrier U, the case S, and the cross piece P, when operating together substantially in the manner and for the purpose described.

No. 20,557.—ABIAL C. HERRON, of Remsen, New York —*Improvement in Sewing-Machines.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the arrangement of the mechanism by which the feeding surfaces upon both sides of the cloth are moved as stated, and by which the motions produced are combined and applied at the same time to the feeding surfaces upon both sides of the cloth, viz: the arrangement of the rocker shafts above and below the table, with the connecting and intermittent pressure mechanism, or its equivalent, whereby I am enabled to feed the article to be sewed between two smooth surfaces, both having a positive, uniform, independent, and intermitting motion, substantially as above described.

I also claim the arrangement of the mechanism, or its equivalent, for interweaving two threads upon the upper surface of the cloth, substantially as described.



No. 20,686.—ALBERT F. JOHNSON, of Boston, Massachusetts, assignor to Himself and FRANCIS F. EMERY, of said Boston.—*Improvement in Sewing-Machines*.—Patent dated June 22, 1858.—The cam E is formed with a hook 1 on its periphery; a deep groove or slot 2, into which the needle descends after it has passed through the cloth; a shallow groove 3, which runs out on the outer face of the cam, forming a lip 4, which catches the loop of the thread, and holds it distended until the hook has caught another loop and drawn it through this one.

The inventor says: I *claim* taking the loop from the needle by a revolving hook, operating in the manner substantially as set forth.

I also claim, in combination with the revolving hook 1, the groove 3, and the lip 4, or its substantial equivalent, for holding the loop distended, in the manner substantially as described.

No. 20,684.—HEMAN S. SNOW, of Meriden, Connecticut, assignor to Himself and GAMALIEL F. SNOW, of said Meriden.—*Improvement in Sewing Machinery*.—Patent dated June 22, 1858.—The feeding apparatus consists of a jointed lever O united to the vibrating arm at P. Resting on the cloth is a pad, which is held down by a spring Q. Underneath this lever is fastened a lifting feeder R, which is brought above the spring pad, and rests upon it by means of its shape, which constitutes a spring. The lever forming the pad has a lever fastened to it at S, the short arm of which passes under the lifting feeder, and the long arm T is pushed down by the needle carrier I in its descent.

The inventor says: I do not claim as new imparting motion to the looper by means of the needle, nor do I claim the moving of the feeder by means of the carrier, as both have been used before.

But I *claim* the combination of the lifting feeder R with lever T, or its equivalent, for lifting the feeder from the cloth by the descent of the needle carrier, the same being arranged and operated substantially as described.

No. 20,688.—WILLIAM T. BARNES, of Buffalo, New York.—*Improvement in Sewing-Machines*.—Patent dated June 29, 1858.—A full description of this invention would require too much space to be given here. When the needle in its descent hits the upper end of the rod V, it forces the looper down the upper end of the looper, the strip T passing across the line of motion of the needle and passing close by the needle, revolving on the principle of a screw, the rod V moving perpendicularly to the plate G.

The inventor says: I do not wish to be understood as claiming any particular mode of operating my improvements in sewing machines, or any precise shape of parts, as these may be varied without changing the principle of my invention.

I disclaim the patent of T. J. W. Robertson, dated May 22, 1855, and the patent of S. S. Turner, dated August 22, 1854.

But I *claim* the looper strip or point T when secured to the revolving rod or piston V and arranged and operating in combination with the step or looping aperture G<sup>11</sup>, spring N, and cylinder P, in the manner and for the purpose specified.



Second. I claim the cloth-guiding apparatus  $F F a a^2$ , and  $t$  and  $t^1$ , as constructed, arranged and operating in combination with the feeding device, for the purpose specified.

No. 20,763 — WESLEY MILLER, of Cambridge, New York, assignor to Himself and WILLIAM P. PRESCOTT, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim a looper moving in the arc of a circle, as that has before been used. Neither do I claim moving such looper by a disconnected lever.

But I *claim* the hooked heel piece 12 and straight side 13, on the looper stock  $g$ , in combination with the finger  $h$ , having a reciprocating motion on the slide  $f$ , whereby the necessary motions for taking a loop, pausing during the ascent and commencement of the descent of the needle thread, are given from the continuously reciprocating finger  $h$ , without the use of springs, as described and shown.

No. 20,761.—THOMAS A. DUGDALE, of Richmond, Indiana, assignor to Himself and JOHN A. BURBANK, of said Richmond.—*Improvement in Sewing-Machines*.—Patent dated June 29, 1858.—By moving the cylindrical bar  $F$  up and down motion is imparted to lever  $G$ , and from that to the needle bar  $H$ ; motion is also imparted to lever  $I$ , lever  $L$ , and the eccentric  $M$  and feed hand  $m$ , by means of the arrangement of slot  $f$ , and the circle at the end of lever  $I$  and stud  $i$  playing horizontally on upright bar  $P$ , by means of slot  $f$ .

The inventor says: I do not claim giving motion to the shuttle and feeding device by means of the vibrating motion of the needle arm. I do not claim the spiral groove, cam, eccentric, or inclined plane, neither separately nor combined, as they have before been used.

But I *claim* the construction of lever  $I$ , with its circle at the end, through which upright  $F$  works in combination with stud  $i$  and slot  $f$  and eccentric  $M$  and feed hand  $m$ , the whole being constructed, arranged, and operated substantially as described and for the purposes set forth.

No. 20,699.—SAMUEL COMFORT, jr., of Morrisville, Pennsylvania.—*Improvement in Sewing-Machine*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim broadly the passing of the loop of the needle thread over a shuttle by a lateral movement of the needle, or the imparting of a feed motion to a fabric by a similar motion of the needle, or the exclusive use of a discoidal shuttle, in which the spool is central with the case, as the devices for accomplishing these objects are set forth in patents already granted.

But I *claim*, first, the rocking frame  $G$  as operated by the crank  $F$ , and constructed substantially as described, with its concave shuttle race in combination with the stationary shuttle.

Second. Imparting to the needle an upward and downward combined with a lateral vibrating movement, by means of the rocking



frame G and levers H and J, as operated by the crank F, substantially in the manner set forth.

Third. The vibrating concave shuttle race K, with its lips  $r$  and  $r^1$ , in combination with the discoidal shuttle L and adjustable retaining plate M.

Fourth. Sustaining the needle in the slot  $v$  of the shuttle race during the time that the said needle is, by its lateral motion, imparting the feed motion to the fabric.

No. 20,753.—H. B. WEST and H. F. WILLSON, of Elyria, Ohio.—*Improvement in Sewing-Machines*.—Patent dated June 29, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The spring-looper bar in combination with the eccentric I, and the oscillating fork J and stationary projection N, against which the outer end of the looper bar strikes, for the purpose of carrying the looper bar back and forth as required, and giving it two intermittents or stop motions, carrying the looper into a position where the needle will pass through it, and allowing the spring again to recoil immediately after the needle has passed through said loop; the whole being constructed in the manner and for the purposes described.

No. 20,739.—E. HARRY SMITH, of New York, New York.—*Improvement in Sewing-Machine*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Revolving the shuttle by means of a series of drivers 6 on the surface of a disk that is arranged to rotate at an angle to the plane of the shuttle's rotation, by which a continuous motion is given to the shuttle, while the drivers operate in such a manner that the needle and its thread are unobstructed in their action, substantially as specified.

No. 20,742.—JOHN THOMSON, of Worcester, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated June 29, 1858.—The inventor says: I do not claim broadly the use of a device separate from the looper for the purpose of spreading the second thread, as such a device has before been proposed. Neither do I claim a double looper to open the loop of needle thread and form a single chain stitch, as such a device has heretofore been used, and may be seen in the patents of William Sage, June 30, 1851, and Rixford & Dimock, January 19, 1858; but neither of these devices are used with or applicable to spreading the second thread to form a loop for the needle, because the device that spreads the said second thread must move between the looper having the eye for the second thread and the under side of the bed of the machine, for if said device moved at the side of the looper the said second thread would draw from its eye down between the two parts, and the spreader become useless. Therefore

I *claim* the spreading finger 8, acting between the bed of the machine and the looper  $i$ , that carries the second thread in such a manner that both enter the loop of needle thread, and then the spreader 8 extends



the loop of the second thread as it draws from the eye of the looper to the cloth, substantially as and for the purposes specified.

No. 20,773.—ROBERT M. BERRY, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated July 6, 1858.—*a* is the vertical slide or lever which operates the needle; *b* is the vertical intermittent feed-slide, which works in the horizontal intermittent slide *c*; *d* is a diagonal slide attached to *a* and as it moves up and down with *a*, it moves *c* back and forth with an intermittent motion; *e* is a spring which presses the feed-slide *b* down on the cloth; *f* is a double trip-lever, and is operated by the trip-spur *g* attached to *b*, and by the trip-slide *h* attached to *a*; *f* is also intermittent in its motion.

*Claim*.—Lifting the feed-slide *b* from the cloth, as described, by the double trip-lever *f*, the trip-slide *h*, and the trip-spur *g*, or their equivalents, operated and operating substantially in the manner and for the purposes set forth.

No. 20,775.—LYMAN R. BLAKE, of South Abington, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated July 6, 1858.—The nature of this invention consists in arranging the shoe-rest *b* on the end of an arm D to extend from the table or supporting frame of the machine and enter the shoe; also in arranging the looper *d*, as well as a thread passage *e* within such horn, or applying the same to operate in connexion with the arm D.

The inventor says: I *claim* the arrangement of the rest *b* of a sewing mechanism, or combining it with an auxiliary arm D of such form as to be capable of entering a shoe and introducing the rest *b* into the toe, as well as other parts of the interior of the shoe, in order that an outer sole may be stitched or sewed upon the inner sole and upper of a shoe.

I also claim arranging either the thread passage or looper, or both, within or so as to operate with the auxiliary arm, substantially as described.

No. 21,015.—CHARLES MOORE, of Buffalo, New York.—*Improvement in Sewing-Machines*.—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the feed-plate described, nor the combination thereof with either function it performs, when said functions are separately considered; neither do I claim any part of the mechanism, nor any combination thereof by which the feed-plate is operated, or by which either function thereof is produced, when separately considered.

But I *claim* the elastic compression plate B, constructed with an offset or face B<sup>2</sup>, which projects through the bed-plate, and performs the combined functions of supporting the cloth equally upon all sides against the puncture of the needle, and of producing an equal pressure upon the cloth upon both sides of the seam or line of stitch when in the act of feeding, substantially as described.

I also claim the self-expanding looping springs Q, arranged and



operating as described, in combination with the slotted hanger U and springs V, for the purposes substantially as set forth.

No. 21,049.—ALBERT H. HOOK, of New York, New York, assignor to the UNION SEWING MACHINE COMPANY, of New York aforesaid.—*Improvement in Sewing-Machines*.—Patent dated July 27, 1858.—These improvements are made upon the single threaded or tambour sewing machine, to which alone they relate, the construction and arrangement of the parts being devised with reference to cheapness and durability.

*Claim*.—A narrow space between the looper finger *e* and arm *g* in combination with the rough surface on *g*, the whole being constructed and arranged substantially as set forth.

No. 20,994.—CORNELIUS DONOVAN, of Abington, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The application or attachment to the sewing machine of the stop motion described, consisting of the lever *a*, the cogged segment *b*, the rack *c*, the belt guide *d*, the brakes *j j*, the crank *n*, the springs *i i i i*, and the lever *h*, the cam *k*, the pulleys *e*<sup>1</sup> *e*<sup>2</sup>, and the belt running on them, the pulley *e*<sup>3</sup>, arranged and operating in the manner described.

No. 20,990.—LUMAN CARPENTER, of Oswego, New York.—*Improvement in Sewing-Machines*.—Patent dated July 27, 1858.—This improvement relates to a feeding mechanism, and consists in the arrangement of a tilting dog or cam F at the lower part of the pivoted feeding bar G, and operating in combination with a friction spring H and the needle bar, whereby the feeding pad I I is caused to retract at the commencement of the upward movement of the needle bar, and thus avoid any tendency to deflect the needle by the friction of the pad upon the cloth.

The inventor says: I am aware that the feed in sewing machines has been produced by a projection or fixed cam on the end of the needle bar or feed bar, or both; also that the feeding bar has been pivoted to a tilting lever and operated over an adjustable screw as its fulcrum. Neither of these arrangements do I propose to claim.

But I *claim* the combination of a tilting dog or cam F, with its friction spring H, and pivoted vibrating bar G, when operated by the needle bar for feeding the cloth, in the manner substantially as described.

No. 21,089.—E. HARRY SMITH, of New York, New York.—*Improvement in Sewing Machines*.—Patent dated August 3, 1858.—The nature of this invention consists in a continuously revolving looper *g*, that passes into, through, and out of the loop of needle thread, catching said loop and retaining it in a distended form until the needle in its next descent passes through the loop, and then the looper passes out of said loop, allowing the same to be drawn up by the descent of the needle, and another loop is taken by the point of the looper from the needle as the looper revolves,



The inventor says: I *claim* forming the stitch by means of the detached looper specified, operating in combination with the needle, and passing entirely through the loop, in substantially the manner and for the purposes described.

I claim the spreader 10, on the side of the looper, for the purposes specified.

I also claim the revolving and oscillating lever *h*, when constructed and arranged in the manner described, to drive the looper *g*, substantially as specified.

No. 21,100.—DARIUS WHEELER and LUMAN CARPENTER, of Oswego, New York.—*Improvement in Sewing-Machines*.—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We are aware of Blodget & Lerow's patent of January 14, 1851, and do not intend to claim anything therein contained, and we are also familiar with the claims of E. Harry Smith, now under examination at the Patent Office, and make no claim to the broad principle claimed by him of a revolving looper, having a continuous rotary movement, and passing entirely through a loop of the needle thread.

But we *claim* the combination of the notched looper B with the needle spring pins J J and cam plate K substantially as described, whereby one end of the looper takes the loop and the other end discharges it upon the needle D, while the looper is moving continuously in a circle.

We also claim the form of the looper substantially as set forth, whereby as the looper progresses through the loop the loop by the combined action of the needle and looper becomes shorter than when first taken, and is removed entirely out of the path of the point of the looper at and after its discharge, so that it cannot be taken again by the looper.

No. 21,129.—JAMES E. A. GIBBS, of Millpoint, Virginia.—*Improvement in Sewing-Machines*.—Patent dated August 10, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim* so constructing and combining or arranging and operating a revolving hook or looper with a reciprocating needle, as that the one loop shall be taken from the needle after the former loop shall have been drawn up, on, along or over the needle during its advance movement, in the manner and for the purpose substantially as described.

I also claim the conical sleeve or its equivalent for holding the spool and for revolving therewith, in combination with the adjustable cones F and G, or their equivalents, for producing the requisite degree of friction upon the conical sleeve spool holder, when constructed and arranged so as to operate substantially in the manner and for the purposes set forth.

No. 21,230.—JONATHAN S. BUELL and W. T. BARNES, of Buffalo, New York, assignors to J. FORSYTH, R. D. ROCKWELL, V. M. RICE,



and W. T. BARNES, of said Buffalo.—*Improvement in Sewing-Machines*.—Patent dated August 17, 1858.—The object of the spring F is to hold the feeder bar Q in the position gained by the feed motion while the needle is descending and while the stitch is being tightened. While the projection L is descending the inclined plane E, the spring F will prevent the feed bar from changing its position, and consequently the foot piece will remain stationary upon the cloth, until the downward motion of the projection L strikes the spring F and presses it downward and its end further into the recess formed in the feeder bar as seen between the points T and U.

The inventors say: We *claim*, first, the arrangement of the springs E F G J and I, with the feeder bar *q*, and feeder *l*, each operating in the manner and for the purpose specified.

Second. The looping apparatus, composed of the framework Y, the spear S, the hooks *t t*<sup>1</sup>, and the guide W, operating substantially in the manner and for the purposes described.

No. 21,224.—WM. P. UHLINGER, of Philadelphia, Pennsylvania.—*Improvement in Sewing-Machines*.—Patent dated August 17, 1858.—In order to secure the needle catching the under thread while coming down, the device L is added to the underside of the machine, which is a vibrating finger so attached and operated that its point catches the under thread just before the needle and carries it away from the looper G, so as to allow an increased space for the needle to enter and catch the under thread.

*Claim*.—The vibrating finger L, in combination with the needle and looper, arranged and operating substantially as described.

No. 21,234.—TIMOTHY D. JACKSON, of New York, N. Y., assignor to JOSEPH W. BARTLETT, of said New York.—*Improvement in Sewing Machines*.—Patent dated August 17, 1858.—The nature of this invention consists in the employment of a thread guide so constructed and arranged that it may be operated entirely by the needle and a spring, and, in combination with a hooked needle, insure the taking of every stitch, and thereby produce a simple and effectual tambour stitch sewing machine.

The inventor says: I am aware that thread guides are used in single thread machines to convey the thread across the path of the needle, which receive their movements from mechanism other than the needle, an example of which may be found in the patent of O. L. Reynolds, May 14, 1850; and I therefore disclaim all such.

But I *claim* a swinging thread guide attached to the cloth presser, and operated by and in combination with an oscillating hooked or barbed needle, constructed substantially as described, whereby I am enabled to secure the taking of every stitch and render a single thread machine effectual, as set forth and specified.

No. 21,250.—R. B. FITTS and MILTON D. WHIPPLE, of Charlestown, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated August 24, 1858.—This invention has for its object more perfectly to steady and guide the cloth in its passage through the machine, and



to prevent it from moving frivolously as the sewing proceeds; and it consists in the use of an angular guide upon the table immediately beneath the pressure foot, which lies in the direction in which the cloth is fed and causes it to advance in a straight line, except when it is guided or turned by the hand of the operator. The guide, which is called a "keel-guide," from the nature of its operations, is seen in the engravings.

*Claim.*—First. The keel-guide *a* beneath the pressure foot, operating as set forth, for the purposes specified.

Second. Causing the shank of the needle to play vertically in the guides and connecting the pitman directly thereto, as described.

Third. Securing the needle in place by means of the pin *f*, when its shank is provided with a notch to insure its proper position with respect to the hook *G* and the table, as set forth.

Fourth. The peculiar arrangement of the bar *K* and its post *o* with the bent lever *b*, sliding plate *m*, and spring *n*, operating as and for the purposes set forth.

No. 21,299.—TIMOTHY D. JACKSON, of New York, New York, assignor to JOSEPH W. BARTLETT, of said New York.—*Improvement in Sewing-Machines.*—Patent dated August 24, 1858.—The nature and object of the first part of this invention consists in the employment and use of a yielding roller, so arranged as to close the barb of the needle during the perforation of the material, and also during the retraction of the needle, to prevent the barb catching in the material.

And the nature of the second part of this invention consists in arranging and combining with a flexible roller a swinging thread-guide, which shall always carry the thread in position for the barbed needle to catch it.

The inventor says: I *claim*, first, the employment of a yielding roller, constructed as described, for the purpose of closing the barb of the needle during its movements, substantially as set forth and specified.

Second. And in combination with a yielding roller the swinging thread-guide, to carry the thread in position for the needle, to insure the stitch, as set forth.

No. 21,258.—ELIAS HOWE, jr., of Brooklyn, New York.—*Improvement in Sewing-Machines.*—Patent dated August 24, 1858.—This invention consists in a method of operating the shuttle so as to cause it to move to and fro by means of a driver applied only to one part of its length. Also in constructing the shuttle, and the mechanism that drives it, in such a manner that they are well adapted to this mode of operation.

*Claim.*—Imparting a reciprocating movement to the shuttle of a sewing-machine, by the application of a driver to one point only of its length, substantially as set forth, in such a manner that the driver need not be disconnected from the shuttle. Also constructing the shuttle-driver in such a manner that it is guided by a race parallel with the shuttle race, or its equivalent, and it is at the same time supported and prevented from sinking out of its proper position by



pivoting its stock, perpendicularly to the table of the machine, in a socket in the arm which imparts motion to it, substantially as set forth.

No. 21,322.—D. W. CLARK, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated August 31, 1858.—The requisite intermittent motion of the belt is imparted by means of a pair of pincers or levers  $Q\ Q^1$ , which are pivoted together at  $g$ . The forward ends of these pincers grasp the belt  $O$  and alternately release their grasp. At the moment of grasping, the pincers vibrate upon the standard or pivot  $R$ , (which rises from frame  $A$ ,) and by this vibration the belt is moved, the wheel  $M$  also turned, and the cloth consequently fed or carried in direction of arrow 1.

*Claim*.—Imparting the necessary intermittent motion to the feed-wheel  $M$ , by means of an endless belt  $O$  and vibrating pincers  $Q\ Q^1$ , arranged and operating in the manner substantially as described.

No. 21,310.—SOLOMON ANDREWS, of Perth Amboy, New Jersey.—*Improvement in Sewing-Machines*.—Patent dated August 31, 1858.—The operation of this machine is as follows: When the wedge lever is moved on its pivot towards the butterfly, the wedge  $b$  first enters between the staple and the butterfly, on the underside and over the back of the butterfly. This presses down the butterfly, because the staple will not yield. By the time the butterfly is fully pressed down the lever  $c$  comes in contact with the extreme end of the mortise in the tail of the butterfly, and will pull it in that direction as far as it is moved on. When the motion is changed to the contrary direction, the wedge is first pulled out; the butterfly rises by its spring, or, if the plate be turned over, falls by gravity, or the spring, or both combined, and as soon as this is done the lever comes in contact with the other end of the mortise and pushes back the butterfly to its original position.

The inventor says: I am aware that the square or parallelogram motion has been employed for feeding the cloth in sewing machines, therefore I do not claim this movement.

But I *claim* the combination of the wedge and lever piece fig. 7, and feeding foot fig. 3, constructed and operating in the manner substantially as described for the purpose specified.

No. 21,465.—SHERBURNE C. BLODGETT, of Philadelphia, Pennsylvania, assignor to GEORGE B. SLOAT & Co., of said Philadelphia.—*Improvement in Sewing Machines*.—Patent dated September 7, 1858.—The nature of this invention consists in an improved mode of operating the hook about the bobbin, viz: with a compound motion produced by a crank and an arm, or by two cranks, whereby the point of the hook is made to travel in an elliptical or circular path without being reversed, or made to point upward or downward during its rotation; also in a peculiar mode of constructing the hook.

The inventor says: I lay no claim to a shuttle, a needle and mechanism for operating them in such manner and while they carry separate threads, as either to cause the shuttle carrying one thread to



pass through a loop of thread formed and held in cloth or other material by the needle, or to cause the loop of the needle thread to be seized by a hook, and cast around the shuttle in such manner as to carry the thread through the loop, as I am aware that such is not new.

Nor do I claim the application of the hook to the bobbin in such manner that such hook shall revolve in a circular path concentric with the axis of the bobbin, and be turned over or reversed in position, so that it shall be caused to point upward and downward while making each entire revolution.

But I *claim* my improved mode of operating the hook about the bobbin, viz: with a compound motion produced by a crank *i*, and an arm *p*, or by two cranks, whereby the point of the hook is made to travel either in an elliptical or a circular path, without being reversed or made to point upward and downward during its rotation. Also, the particular mode above described of constructing the hook, viz: so that not only the heel part thereof shall lap over the edge of the bobbin, but the point of the said hook extend obliquely in manner as described, or toward the needle, and so as to operate therewith as explained, and making the said hook with an auxiliary hook or notch *z*, the same being to operate together as specified.

No. 21,402.—BRYAN ATWATER, of Berlin, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The improved arrangement of the guide plates *J i*, with respect to one another, the needle *a*, and the bed plate *B*, viz: so that there may be a space *b* between the bed plate and the upper end or notch of the guide plate *J*, and the two guide plates be placed so close together as to hold the middle of the bow of the loop in position and bridged across the recess of the plate *J*, substantially in manner for the reception of the needle by the loop, and to effect advantages as set forth.

No. 21,461.—JEROME B. WOODRUFF, of Washington, District of Columbia.—*Improvement in Sewing-Machines*.—Patent dated September 7, 1858.—This invention consists in the construction and use of a double corrugated spring to regulate the tension of the needle thread, which is made to pass between the plates of the spring, and in the employment of an extension rod to adapt the machine to tables of varying heights, and also in the means employed for retaining the shuttle in place, and at the same time to render it easily accessible to insert and remove the bobbin.

The inventor says: I *claim*, first, the double corrugated yielding spring, between which the thread is guided, the same being regulated by a thumb-screw, or any equivalent device, to bear upon the thread in the manner described to produce any degree of tension required.

Second. I claim making the bowl or shuttle carrier, and attaching it to the slotted driver, as described, in combination with the circular shuttle race.

Third. I claim the application of extension rods for pitmans to sewing machines, when used in combination with a hinged foot piece



to be placed upon the floor, and the machine upon a table, in the manner and for the purpose specified.

No. 21,466.—MILES L. CLINTON, of Ithaca, New York, assignor to H. F. HIBBARD, of said Ithaca.—*Improvement in Sewing-Machines*.—Patent dated September 7, 1858.—This improvement consists in the peculiar method of operating the hook (or spring hook) that holds the loop of thread in single thread sewing-machines, and also the device for winding the thread on to the spool.

*Claim*.—The cams B and C on shaft A, in combination with spring hook D, constructed and operated substantially in the manner and for the purpose described.

No. 21,537.—GEORGE W. HUBBARD, of Meriden, Connecticut, assignor to Himself, WALTER HUBBARD, W. L. BRADLEY, and N. L. BRADLEY, of said Meriden.—*Improvement in Sewing-Machines*.—Patent dated September 14, 1858.—This invention consists in a looper of novel construction, operated by the “eye pointed” needle, and operating in combination therewith to sew what is known as the chain stitch with a single thread.

The inventor says: I do not claim the operation of the looper by means of the needle, as this was patented by T. J. W. Robertson, May 22, 1855.

But I *claim* the looper composed of the fixed plate *c*, the elastic plate *d d'*, and the hook *i*, applied to be operated by and to operate in combination with the needle, substantially as specified.

No. 21,592.—JONAS HINKLEY, of Huron, Ohio, assignor to Himself and F. A. WILDMAN, of Norwalk, Ohio.—*Improvement in Sewing-Machines*.—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the method of operating the feeding arm or cloth mover by the combined action of the pivoted bow K, pressing lever N, flexing strap O, and vibrating plate D, or its equivalent, as set forth.

Second. Mounting the vibrating plate D, which imparts motion to the loop-forming hook and feeding mechanism, upon the spring arms *n*, arranged at right angles to a longitudinal spring H for balancing said plate in its vibration.

Third. Mounting the spool T upon a spindle having elliptical-shaped springs, which extend into and through the eye of the spool, as and for the purposes specified.

No. 21,722.—JOSEPH E. HENDRICK, of Bristol, Connecticut, assignor to Himself, W. H. NETTLETON, and GEORGE STEVENS, of said Bristol.—*Improvement in Sewing-Machines*.—Patent dated October 5, 1858.—The nature of this invention consists in the application of sewing mechanism to a device similar to shears, whereby the opening and shutting of the shears performs the functions of sewing; thereby a simple, portable, cheap, and efficient machine is constructed that can be used in the hand in a manner similar to shears, and applied to the



work instead of the work being applied to it, or the said shears may be screwed to the table or other convenient place for support, and the cloth presented to the "sewing shears."

*Claim.*—The shears handles or bowls  $a^1$   $b^1$ , in combination with the upper part or blade  $a$ , acting as a needle carrier, and the lower part  $b$ , formed as a bed, as specified, whereby the sewing and feeding mechanism is actuated by a motion of the hand similar to that of cutting with shears, as set forth.

No. 21,713.—JOSEPH WHITE, of Troy, New York.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—This invention relates to the particular operation of the looper for the purpose of catching, spreading, holding, and releasing the loop at proper intervals during the process of sewing, without putting any twist in the thread, thus making a neat and finished seam.

*Claim.*—Giving the looper its motions for catching, spreading, and holding open the loop, and then delivering it up to the needle, without putting any twist in the thread, by means of a shaft having two motions at the same time, and given to it by mechanism substantially such as described.

No. 21,672.—DANIEL HARRIS, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* driving the needle arm and the apparatus for effecting the feed and for forming the loops in sewing-machines by means of a pulley provided with an india rubber ring, or its equivalent, and hung in brackets cast on to the bed plate, substantially as described, in combination with a fly wheel, also hung in brackets, but which are attached to the table; said pulley and fly wheel being arranged in relation to each other, so that they may be readily thrown into or out of working contact, as set forth.

I also claim the peculiar construction of the hollow goose neck, when so shaped as to admit of the insertion of a bent needle arm, and the vibration thereof upon a fulcrum within said goose neck, in the manner and for the purpose specified.

I also claim for feeding the cloth or other substance in sewing machines, the feed hand connected by means of a yielding joint with the slotted plate containing the slide  $l$ , and forming therewith a parallelogram opening in combination with a vibratory needle stock having a pin projecting into said slot, so as to operate in the manner and for the purposes described.

No. 21,669.—WILLIAM O. GROVER, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—The nature of the first part of this invention consists in combining the needle of a sewing machine with a hollow cylinder, and with a piston or plunger, the one sliding upon the other.

The inventor says: I *claim*, first, the combination of a cylinder and plunger and needle of a sewing-machine, substantially in the manner and for the purpose specified.



Second, I claim a slot, or its equivalent, for the purpose specified, in combination with the guiding mechanism of a sewing-machine needle, substantially as described.

No. 21,670.—WILLIAM O. GROVER, of Boston, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the combination with a curved needle or hooker-on, or looper, of an irregularly shaped spiral shaft, and a reciprocating driver, both substantially such as before specified, and constituting an apparatus for imparting the required motions and pauses to a crooked needle, substantially in the manner specified.

Second. I claim mounting a driver, combined with and acting upon a spiral shaft, both substantially such as described, with a spring or springs, substantially in the manner and for the purpose specified.

Third. I claim combining such springs with layers of raw hide, leather, or similar material, when acting upon and in combination with a spiral shaft, substantially in the manner and for the purposes specified.

Fourth. I claim an actuating surface, substantially such as is specified, so formed as to surround or embrace an irregular screwed shaft, and at the same time free to slide in a driver, in planes perpendicular, or nearly so, to such a shaft, substantially in the manner and for the purposes specified.

No. 21,671.—WILLIAM O. GROVER, of Boston, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated October 5, 1858.—This invention consists in the construction and combination of parts. The presser foot having a rounded surface to come in contact with the cloth as shown at *a*, making part of or attached to the slide *b*, which is free to play in proper ways or guides in a block *d d* attached to some part of the machine. This slide or rod is furnished at or near its upper end with a bar *f*, either making part of the slide, or secured to it by brazing or otherwise. The precise function of this bar being to rest upon a cam and transmit motion to the slide.

*Claim*.—The inventor says: I wish it distinctly understood that I am aware of the fact that there are now in common use a variety of devices for giving and permitting the motion of presser feet slides, and that among them is a bent lever attached by a hinge to a slide which is pressed upon by a coiled spring. I therefore claim as my own invention the combination of a spring, a bar attached to or making part of a slide and resting upon a cam, and a cam shaped substantially as specified, when these parts are held in working position and connection by the spring, as there is no attachment between the bar and the cam, all these parts being substantially such as are before described, and acting severally and in combination, substantially in the manner and for the purposes before specified.

No. 21,751.—JAMES E. A. GIBBS, of Mill Point, Virginia.—*Improvement in Sewing-Machines*.—Patent dated October 12, 1858.—The claim and engraving explain the nature of this invention.



*Claim.*—In combination with an eye-pointed needle vibrating up and down and back and forth in a plane passing through the line of feed, the spring hook J, or a hook constructed so as to yield sidewise or laterally of the path of the needle when actuated by said needle, in the manner and for the purpose of operating substantially as described.

No. 21,800.—WARREN MILLAR, of Chicago, Illinois, assignor to Himself and JOHN NUTT, of said Chicago.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—This invention consists principally in a rotating two-hooked ring, operating to extend the loops in the needle thread, in combination with a reciprocating spool, which supplies the locking thread through said ring and through the loops extended thereon. It also consists in the employment of a loose ring applied within a cavity in the aforesaid rotating two hooked ring, to produce the necessary tension on the locking thread.

The inventor says: I do not claim the combination of the rotating hook to extend the loops in the needle thread, with a reciprocating bobbin to carry the locking thread through the so-extended loops, as that is claimed in the patent of A. B. Wilson, August 12, 1851.

Neither do I claim the driving of the reciprocating spool by means of a groove in a rotating hollow mandrel, into which the said spool passes, and which carries the rotating hook.

Nor do I claim placing the hook which takes the loop from the needle on the side of the ring opposite to that where the thread passes from the bobbin or thread case to the needle loop, when such bobbin or thread case is stationary or revolves with the hook, as such construction and arrangement of these devices are employed in the patent of E. Harry Smith, dated November 10, 1857.

But I *claim*, first, the revolving hooked ring, constructed as described, when arranged and operating in combination with the needle and the reciprocating spool, carrying the locking thread, for the purpose specified.

Second. The loose ring R applied within the rotating two-hooked ring, and operating in combination therewith, substantially as described, to produce a tension on the locking thread.

No. 21,752.—WILLIAM O. GROVER, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, driving or speeding up a sewing-machine by means of a convex elastic face on one wheel or pulley acting in combination with and by friction upon a non-elastic concave face on another wheel or pulley combined and acting together, substantially in the manner and for the purposes specified.

Second. I claim supporting and steadying a sewing-machine by the combination of a tube of India rubber, or its equivalent, with an internal pin or projection, the two being fitted and acting substantially in the manner and for the purposes set forth.

No. 21,745.—CHAUNCEY O. CROSBY, of New Haven, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—This invention consists in so constructing the machine, that by the



arrangement and combination of the several devices, the operator is able to imitate, so far as is beneficial, the manipulations of sewing by hand, so far as the thumb and first two fingers of the left hand are concerned in holding the cloth, and those of the right hand in using the needle. And in the method of drawing the main portion of the thread through the cloth, controlling the slack thread, and drawing up the stitch without any strain upon the eye of the needle, or of the thread where it rests in the eye of the needle, or of chafing the thread by drawing it through at an acute angle with the cloth, each of which evils occurs in sewing by hand.

The inventor says: I *claim*, first, the combination of the cloth holder with the needle bar and thimble bar, when constructed and made to operate substantially as described.

Second. I claim the combination of the needle bar and thimble bar with a common needle, when made to operate substantially as described.

Third. I claim the combination of the feeding apparatus with the needle bar for carrying the needle, when made to operate substantially as described.

Fourth. I claim the combination of the needle bar with the hooks and endless tapes, when arranged and made to operate substantially as described.

No. 21,833.—GEORGE W. HUBBARD, of West Meriden, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated October 19, 1858.—This invention consists in an improved construction of the loopers of sewing-machines, and in the manner of operating the same. The looper consists of a hook so shaped as to engage and spread the loop in a well known manner. It is, however, so constructed as to be capable of being operated by a fixture attached to the needle bar, which fixture being carried up and down with the needle, effects the working at the proper time and in a simple manner.

*Claim*.—Operating the looper by means of a pin working in conjunction with the needle, in the manner substantially as described.

No. 21,929.—AMOS W. SANGSTER, of Buffalo, New York, assignor to VICTOR M. RICE, JOEL THAYER, JAMES SANGSTER, and ELIZA REMINGTON, of said Buffalo.—*Improvement in Sewing-Machines*.—Patent dated October 26, 1858.—The nature of this invention consists in providing a revolving cam or wheel in combination with an adjustable foot-piece, or equivalent, between which, and by means of which, the cloth is fed to the machine and the length of the stitch is regulated:

*Claim*.—The combination of the cam or wheel H, provided with one or more projections on its periphery, with the adjustable foot-piece G, or its equivalent, for feeding the cloth and regulating the length of the stitch in the manner described and without the use of an intermediate feed-piece.

No. 22,050.—SAMUEL COMFORT, jr., of Morrisville, Pennsylvania, assignor to Himself and FRANCIS H. JACKSON, of Philadelphia, Pennsylvania.—*Improvement in Sewing-Machines*.—Patent dated November 9, 1858.—This invention relates to improvements in sewing-machines



for which letters patent were granted to the above named inventor on the 29th of June, 1858, and consists in protecting the bent needle and preventing it from springing or breaking as it is in the act of penetrating the fabric, by means of a guard arranged to coincide with and be in juxtaposition to the needle; also in a device connected with the needle-guard, whereby the needle thread is caused to maintain the needle in proximity to the guard and whereby the thread is caused to take its place in the groove in front of the needle, and thus prevent a double loop from being passed round the shuttle.

The inventor says: I *claim* the guard *i* in combination with a bent needle, the inner edge of the said guard being in juxtaposition with the needle and forming the segment of a circle, of which the centre of vibration of the needle arm is the centre for the purpose specified.

I also claim causing the needle thread to maintain the needle in proximity to the guard *i*, and at the same time so guiding the thread to coincide with the groove of the needle by means of the projection 2, arranged on the said guard, substantially as set forth.

No. 22,007.—OTIS AVERY and ZELOTES W. AVERY, of Bethany, Pennsylvania.—*Improvement in Sewing-Machines*.—Patent dated November 9, 1858.—This invention relates to that class of sewing machines known as the single thread or “Tambour machine.” J is the cloth presser or foot through a slot in which the needle works. This presser holds the material and prevents its being raised by the needle; it is attached to a rod *g* which passes up through the part E of the frame, in suitable bearings therein, and behind this rod there is a spring *i* for throwing it towards the needle bar after it has aided to feed up the cloth for one stitch so as to be ready for the next succeeding stitch.

Immediately behind the hook *a* on the shaft B, there is a cam *h* which rotates in a yoke K that is pivoted to a frame *k*, said yoke is kept against cam *h* by spring L, so that as the cam rotates on its shaft the yoke shall vibrate on its pivoted point *k*.

The inventors say: We *claim* the combination of the rocker or yoke K, pivoted as described, and the presser S, operated as set forth, for the purpose of firmly holding the cloth whilst it is being fed up or moved as represented.

We also claim, in combination with the beam H and its cam *q*, the bar *o* and its cam *r*, when said parts effect the purposes described, and in the manner set forth.

No. 22,045.—CALVIN D. WHEELER, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated November 9, 1858.—This invention consists in interposing between the thread-spool and the place where the thread is used, a sheave whose greater or less freedom of motion on its axis is controlled by an adjustable friction brake, and whose periphery contains a sharp groove in which the thread, which is passed partly around the sheave, jams, so that the sheave is turned by the thread as the latter is drawn to the point where it is used, and the tension or the strain upon the thread depends upon the greater or less resistance of the friction brake,



which, when once adjusted, remains constantly the same whatever quantity of thread be passed through the machine.

*Claim.*—The combination of a sheave whose groove is sharp or so constructed that the thread may jam therein by a partial passage around the sheave, with an adjustable friction brake to control the movement of the said sheave, substantially as described.

No. 22,148.—JAMES PERRY, of New York, New York, assignor to ISAAC C. NOE, of said New York.—*Improvement in Sewing-Machines.*—Patent dated November 23, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I wish it to be distinctly understood that I do not limit myself to the precise construction and arrangement of the parts, as these may be variously modified without the principle or mode of operation which I have invented and claim to be new and useful. Nor do I wish to be understood as claiming any particular device simply to catch a loop and to move the same that the needle may enter it.

I *claim* the combination and arrangement of the levers and cams for imparting the three reciprocating movements to the looper, namely, that in the arc of a circle, the lateral and the vertical, in the manner substantially as described for the purposes specified.

Also, the shield *i*<sup>1</sup> in combination with the looper and needle, arranged and operating in the manner described, for the purpose of presenting the loop to the looper with greater certainty.

No. 22,137.—JAMES H. SPENCER and THOMAS LAMB, of Philadelphia, Pennsylvania.—*Improvement in Sewing-Machines.*—Patent dated November 23, 1858.—This invention consists in a novel combination of a reciprocating or vibrating shuttle-holder, with permanent and yielding projections, and a spring catch for retaining the shuttle plate and its spool, the whole being arranged in respect to each other and to a lip projecting from the cloth plate. And it further consists in a peculiar arrangement of cams, rods, and arms for feeding the fabric and regulating the feed, and in a combination and arrangement of cylinders and pins for imparting the necessary tension to the fabric, and for regulating the amount of tension.

The inventors say: We *claim*, first. The vibrating and reciprocating carrier *h*, with its permanent projections *k k*, yielding projection *j*, and spring-retaining catch *p*, in combination with the shuttle *M*, its casing *N* and spool *n*, when the several parts are constructed substantially as described, and when they are arranged in respect to each other and to the lip *q* as and for the purpose set forth.

Second. We do not claim, broadly, feeding the fabric by the combined vertical and lateral motion of a roughened surface feed bar on the said fabric, as such a device is described in the patent of A. B. Wilson, granted December 19, 1854. But we claim the arrangement of the parts described for feeding the fabric and regulating the amount of the feed; that is to say, the cams *F* and *G*, spring-rod *P*, arms *w* and *v*, the rod *z*, its collar 2 and adjustable nut *Q*.

Third. The cylinders 3 and 4, with their respective pins, when



arranged in respect to each other to receive the folds of the needle thread, as set forth, so that by turning one or both of the said cylinders the pins may cause more or less of the folds to bear against the surface of the cylinders as set forth.

No. 22,143.—HIRAM W. HARKNESS, of Bristol, Connecticut, assignor to Himself and WILFORD H. NETTLETON, of said Bristol.—*Improvement in Sewing-Machines*.—Patent dated November 23, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—Feeding the cloth to sewing-machines by the combined action of a smooth reciprocating pressure foot and a vertical clamp, acting at the end of said foot, to hold the cloth firmly while being moved, the bend or angle thus formed in the said material enabling the feed to act with but little pressure on the goods from the smooth foot-piece, as specified.

No. 22,179.—ALBERT H. HOOK, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated November 30, 1858.—This improvement consists in simplifying and arranging the construction of certain parts of machinery necessary to mechanical sewing, by which can be made a compact machine at small cost and retain all the useful features of a single thread sewing-machine, dispensing with threading and other difficulties in its operation usually incident to such devices.

*Claim*.—The combination of the levers *m n*, arm *k*, spring *o*, and cam *p*, constructed and arranged substantially in the manner and for the purpose set forth.

No. 22,160.—S. S. BURNET and WILLIAM BRODERICK, of Chicago, Illinois.—*Improvement in Sewing-Machines*.—Patent dated November 30, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, the employment of the rocker *F* in combination with the cranks *I J* of the driving shaft, and with the needle bar or slide *C*, in the manner substantially as specified, for giving the required motions to the needle bar or slide to accomplish the formation of the loop, and at the same time allow the shuttle time to pass through the loop before the loop is drawn tight, and thereby accomplish the interlocking of the two threads and the drawing of the stitch tight on the cloth, as set forth.

Second. The employment of an auxiliary adjustable thread guide *N* in combination with the rocker *F* and stationary thread guide *N*<sup>1</sup> *N*<sup>1</sup>, in the manner substantially as hereinafter specified, for the purposes of governing and adjusting the amount of thread for each stitch.

Third. The employment of the segment friction plate *N*<sup>3</sup>, hung on a horizontal axis and constructed and operating as described, with or without index pointer *f*, in combination with the thread guides *N*<sup>1</sup> *N*<sup>2</sup>, substantially as described, for the purpose of causing greater or less tension upon the upper or needle thread.

Fourth. The employment of a vertical sliding, unyielding pressure bar *P*<sup>1</sup>, formed of two pieces *m n*, which are right and left screw tapped, and coupled together by an adjustable link nut *l* in combination



with a jointed pivoted feeding and holding down pad *O o*, and a vertically and laterally acting cam *s t* of the rocker, in the manner substantially as specified.

No. 22,220.—CHARLES RAYMOND, of Brattleborough, Connecticut, assignor to WILLFORD H. NETTLETON, of Bristol, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated November 30, 1858.—The nature of this invention consists in a peculiar manner of applying and regulating the feeding rollers that move the cloth, whereby more or less motion is given to the rollers to feed the cloth while the needle is out of it; also in a new construction of looper that forms a double chain stitch, said looper being formed in two pieces, the first of which passes through the loop and spreads the same, and then the second moves up and the needle takes a loop therefrom, and then the two retiring drop the first loop around the second, and so on.

The inventor says: I *claim* the arrangement of the adjustable neck *n*, having a reciprocating and vibrating motion, and operating in combination with the pinion *o* and feeding wheel *q*, to regulate the feed in the manner described.

I also claim the slide *u*, carrying the looper 13 and provided with the slot 16, receiving the pin 15 on the bar *x* that is formed with the carrier 14 for the second thread, whereby the thread carrier 14 is actuated by the reciprocations of the looper 13, substantially in the manner and for the purpose specified.

No. 22,269.—STEPHEN G. TYLER, of Quincy, Illinois, assignor to Himself, G. J. SAVAGE, and J. W. BARNUM, of said Quincy.—*Improvement in Sewing-Machines*.—Patent dated December 7, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Making the bearing surface of a feeding foot or pressure pad of a sewing machine, or their equivalents, with two or more parts or toes, each self-adjusting to varying thicknesses or inequalities of surface, cording, hemming, or sewing plain work, and combining the same with a sewing-machine feeding apparatus, substantially as and for the purposes specified.

No. 22,225.—ROBERT M. BERRY, of New York, New York.—*Improvement in Sewing-Machines*.—Patent dated December 7, 1858.—I is a smooth piece of cork wood made fast to the under surface of *b*, and *L* is a smooth brass table or plate. *J* is a nick in which the short end of lever *h* is held, and *k* is a set screw by which the extent of action of *h* is controlled.

*Claim*.—The combination and arrangement of the feeding foot *L*, of cork, or its equivalent, with the peculiar feeding mechanism described, or its equivalent, operating in the manner substantially as and for the purpose specified.

No. 22,240.—SAMUEL F. PRATT, of Roxbury, Massachusetts.—*Improvement in Sewing-Machines*.—Patent dated December 7, 1858.—This machine is intended to accomplish the sewing of cloth or other material, by the interlooping of two threads, one being carried by an



eye-pointed needle, and the other by a thread carrier or adjuster, with which a hook or expansion hook is employed to effect the formation of loops and their passage through those of the needle, the nature of the principal part of the invention consisting in the combination of the thread carrier or adjuster, and the hook, when applied and used with a needle. It also consists in a peculiar thread carrier or a hook or barb, and a slot, or its equivalent, operating in conjunction or combination to effect the proper seizure of the lower thread and its disposal with respect to the loop of the needle, in order that such lower thread may be seized by the mechanism for drawing it through the needle loop.

The inventor says: I *claim* for interlooping two threads in order to sew cloth or other material, by means of an eye-pointed needle, or its equivalent, the combination of a thread carrier or adjuster M, and a hook P, so acting together, and with the eye-pointed needle, or its equivalent, as not only to cause the thread of the carrier to be laid or presented in rear of the needle in a proper manner to be seized by the hook, but to cause the hook to pass through the loop of the needle, seize the thread of the carrier, and next recede, and draw the said thread in the form of a loop through the loop of the needle, and properly present it for the needle to pass through it during its next downward movement after the cloth may have been fed along the length of the stitch.

I also claim the thread carrier M, constructed with the slit *a*, or its equivalent, and barb *b*, operating in the manner described, to present the lower thread to the reciprocating looper hook, which will draw it through the loop formed in the needle thread.

No. 22,264.—JOHN FIRST, of New York, New York, assignor to Himself and JAMES FROST, of said New York.—*Improvement in Sewing-Machines*.—Patent dated December 7, 1858.—The nature of this invention consists in the use of a slotted arm driven by a rod connected to a crank pin and sliding in a swivel guide, the whole combined and serving in the relations to each other for the purpose of giving the requisite irregular motion to the needle bar.

*Claim*.—The employment of the slotted arm D, the rod and pin E H, and the swiveling guide G, or their respective equivalents, in combination with each other and with the crank E, substantially as described, for the purpose of communicating the requisite irregular motion to the needle bar of a sewing machine, as set forth.

No. 22,255.—JOHN MACKENZIE, of Cleveland, Ohio.—*Improvement in Sewing-Machines*.—Patent dated December 7, 1858.—This invention consists in a certain combination and arrangement of mechanical devices to provide for the operation of the feeding-dog, by the elongation of an eccentric-pin which drives the shuttle.

*Claim*.—Combining the lever-like feed-dog K with the revolving eccentric-pin *e*, which operates the shuttle by means of the vibrating slotted double cam-like plate P, and the two levers L and M, the connecting-rod K, and the springs S S, the whole being arranged and operating as described, to produce the movements of the feed-dog.



No. 22,226.—HOBERT H. BISHOP, of Bristol, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated December 7, 1858.—This invention relates to a device for sustaining and actuating the needle so that it enters the cloth vertically, and when near its furthest point of insertion moves laterally to feed the cloth, and then draws out straight, and while out returns to its previous position, a regulated distance corresponding to the length of his stitch, whereby the needle feed does not operate except at the strong base of the needle.

*Claim*.—The plate *k* in slides on the needle-bar *h*, at right angles to it, and carrying the eye-pointed needle, in combination with the bent lever *m* and stops 4 and 5, or their equivalents, for the purposes and substantially as specified.

No. 22,273 —J. E. ATWOOD, of Mansfield Centre, Connecticut.—*Improvement in Sewing-Machines*.—Patent dated December 14, 1858.—This invention consists in the combination and arrangement of feeding mechanism for moving the cloth, or other material to be sewed, between the other operations of the needle.

A is the plate upon which the material is placed to be sewed, having cast with it the standard B to which is attached the arm C, to which is secured the spring pressure-pad D for confining the material to be sewed to the table or plate A; said arm also carrying the guide E for the vertically-sliding needle-bar N, and containing the bearings for the main shaft F, from which the needle and looper, or shuttle and feeding mechanism, also derive motion.

*Claim*.—The combination of the vibrating arm H which carries the dog *g*, its attached arm K, the swinging frame I, the independent levers *i j*, the springs *h l*, and the cam J, the whole applied, arranged, and operating substantially as set forth.

No. 22,275.—AMOS H. BOYD, of Saco, Maine.—*Improvement in Sewing-Machines*.—Patent dated December 14, 1858.—In using this machine, the wheel D is set in motion and the needle descends, and as it ascends the eccentric-groove *c* is so constructed that the bar B will move, bringing the looper forward so that the projection *d* will catch the thread between it and the point *e* of the looper-bar. By the time the thread is fairly caught on the projection, the eccentric-groove *g* operates upon the bar C, moving it backward; and thus, by means of the ear *i* and pin *o*, the looper-shaft is made to revolve partially, thus holding the loop open until the needle descends. When the needle descends the bar C moves forward, revolving the looper-shaft back again, and almost instantly the bar B moves the looper-bar back so as to disengage it entirely from the thread. As the needle ascends again the looper-bar is made again to move forward, receive the loop, revolve and hold it until the needle descends, then it turns and moves back, and thus each stitch is made.

*Claim*.—The combination of the looper E, the bars B and C, and cam-wheel D, when constructed, arranged, and operated in the manner substantially as described and for the purpose specified.

No. 20,664.—FRANCIS A. ROSS and WILLIAM H. MARSHALL, of New York, N. Y.—*Improved Cabinet for Sewing-Machines*.—Patent dated



June 22, 1858.—Upon the top of the cabinet is placed the sewing platform B. It is hinged at the back and has a catch-lock in front. The cap A is for covering the machine. The doors C of the cabinet are hinged upon pivots G.

*Claim.*—The hinged case B to form a sewing platform, arranged and constructed substantially as described.

No. 20,245.—LEMUEL W. SERRELL, of Brooklyn, New York, assignor to JOHN HAROLD, of Hempstead, New York.—*Improvement in Guides for Sewing-Machines.*—Patent dated May 11, 1858.—The object of this invention is to provide means for guiding the cloth to the sewing machine that any character of work can be performed, by a combination or permutation of guides that control the position of the cloth relatively with the needle, and at the same time keep the goods as flat as possible and open to the inspection of the operator, and also turn the hems on the cloth.

The inventor says: I *claim*, first, the detached tongue *g*, around which the edge of the cloth to be hemmed is folded or wrapped to a greater or lesser extent, substantially as and for the purposes specified.

Second. I claim the adjustable hem-spreader K, in combination with the tongue *g*, substantially as specified.

Third. I claim the combination of the separate or detached tongue *g* with the inclined tucker *h*, to pass the edge of the cloth beneath the said tongue *g* between that and the material on the bed to form the hem, substantially as specified.

Fourth. I claim the finger *g* in combination with the tongue *g*, substantially as and for the purposes specified.

Fifth. I claim the gauge *r*, in combination with the hem spreader *k*, and gauge *l*, substantially as and for the purposes specified.

No. 21,355.—HENRY B. ODIORNE, of Philadelphia, Pennsylvania.—*Improvement in Hemming Guides for Sewing-Machines.*—Patent dated August 31, 1858.—This invention consists in constructing the pressure-pads of sewing-machines with certain recesses formed and arranged as shown, and in combining with the same a curved tongue or projecting curved lip, in order that by the joint action of the said recesses and curved tongue, or their equivalents, the edge of the fabric may be turned over, and the two folds, necessary for producing the required hem, formed as the fabric is moved forward by any of the feeding devices generally used in sewing-machines.

The inventor says: I lay no claim to any device described in the patent of S. P. Chapin, or to that of S. C. Blodgett, granted January 3, 1854.

But I *claim* constructing the pressure-pad of a sewing-machine with recesses, arranged and formed substantially as described, in combination with the curved tongue B, or its equivalent, for the purpose specified.

No. 21,361.—TRUMAN W. PEPPER, of New York, New York.—*Improvement in Oiling the Thread for Sewing-Machines.*—Patent dated August 31, 1858.—The nature and object of this invention is to obvi-



ate spattering the oil and consequent damage arising therefrom by mounting to the pressure bar or other part of the machine a vessel filled with oil, and provided with an orifice for holding any porous or absorbing material for the thread to pass over during its passage to the needle, and having a valve to regulate the flow of oil to the absorbing material, so that the operator can saturate the needle thread more or less at option, and thereby accomplish the desired end without the slightest detriment to the goods during the progress of sewing.

The inventor says: I am aware of the patent granted to I. M. Singer, May 30, 1854, wherein he claims oiling the thread with linseed oil mixed with a dryer, which he accomplishes by passing the thread into and out of a cup, said thread being passed over the edges of the cup, and made to pass near the bottom thereof by means of a guiding eye.

I am also aware of the patent granted to Salem Wilder, January 30, 1855, for waxing thread, wherein thread is passed into and out of a cup in a manner identical with Singer, and I therefore claim no part, device, or thing in these patents.

But I *claim* the described improvement in oil vessels for sewing machines, namely, providing the vessel with the regulating plug *a*, neck or spout *b*, and porous material *c*, over which the thread is drawn, arranged, and operating in the manner substantially as described.

No. 20,006.—PHINEAS J. STEER, of Washington, District of Columbia.—*Improvement in Operating Sewing-Machines*.—Patent dated April 20, 1858.—When the operator is ready to start this machine she will slightly elevate the left knee by raising the heel about half an inch from the floor, or until she feels the left knee touching the pawl *H*. The pawl will then be in the ratchet, and the machine will be securely locked against a backward motion, but free to move forward. Then, with her right foot upon the treadle, she starts the machine, and it must go forward, which is instantly known by the clicking of the pawl upon the ratchet wheel, when she may drop the knee and keep the machine going by the treadle. As soon as the knee drops the clicking ceases.

The inventor says: I disclaim the employment of a pawl and ratchet for the purpose of revolving a shaft continuously in one direction, as this is not new.

But I *claim* the arrangement of the devices for starting sewing machines always in a right direction, and to prevent backward motion with the knee and foot of the operator, and without using the hand for that purpose, as set forth and described.

No. 21,398.—JOHN T. B. ROGERS, of New York, New York, assignor to GEORGE B. SLOAT, of Philadelphia, Pennsylvania.—*Improvement in Regulating the Tension of the Thread in Sewing-Machines*.—Patent dated August 31, 1858.—This invention consists of two conical surfaces, one of which is concave, and forms a cap to the other, which is convex, and an adjusting screw and spring, the whole being combined



in a manner to produce upon the thread passing between the cones friction, which is sufficiently variable to produce a degree of tension on the thread which can be regulated with extreme delicacy.

The inventor says: I do not claim regulating the tension of the thread by graduated friction thereon, or by causing it to pass over variable angular surfaces.

But I *claim* the combination, substantially as shown and described, of the cone A and conical cap B, for the purposes set forth.

No. 20,409.—JAMES COTTRELL, of Studley, England.—*Improvement in Sewing Needles*.—Patent dated June 1, 1858.—The nature of this invention will be explained by reference to the claim and engravings.

*Claim*.—The sewing needle described as a new article of manufacture, that is to say, giving the space between the cutting edges of the triangular or equivalent formed needle a concave form, substantially in the manner and for the purposes described.

No. 22,140.—HENRY WALKER, of Alcaster, Warwickshire and Gresham street, London, England.—*Improvement in the Manufacture of Sewing Needles*.—Patented in England May 19, 1858.—Patent dated November 23, 1858.—The nature of this invention consists in forming the dies or bits in such a manner that the cylindrical shape of the needle is nearly or entirely preserved, so that a circular hole is left for the thread to be drawn into.

*Claim*.—Forming the eyes of the needles in the cylinder of the wire, without flattening the same, by means of the double grooves E, substantially as and for the purposes specified.

No. 19,283.—HAROLD KELSEA, of North Branch, in Antrim, New Hampshire, assignor to Himself and HENRY DUNKLEE, assignors to D. B. and J. C. FULLER, of New York, New York—*Improvement in Manufacturing Sewing Silk*.—Patent dated February 2, 1858.—This invention consists in an improved manufacture of sewing silk or twist, it being made by interlooping a single strand so as to lay together, and side by side, between each two adjacent interloopings of it, three straight portions of the strand. After this has been done the whole is to be twisted together, so as to form one single line or cord.

The inventor says: I do not claim a manufacture of silk twist as made by laying and twisting together three different strands.

But I *claim* my improved manufacture of silk twist or sewing silk, as made by looping and interlooping a single strand, and subsequently twisting it into one line or cord, as specified.

No. 21,068.—JAMES EATON, of Townsend Harbor, Massachusetts.—*Improvement in Cop Tubes for Shuttles*.—Patent dated August 3, 1858.—The extremities of the shuttle spindle are furnished with a button, *b*, which serves to hold off the yarn from the spindle and prevent it from wrapping and winding round it as it is drawn off. This button also serves to hold the cop tube in place upon the spindle.

The inventor says: I do not claim the use of a cop tube of entire length of the spindle, when used alone and unconnected with the



button, or its equivalent, to guide the yarn over the point of the spindle A.

But I *claim* the employment of a button upon the end of the spindle or of the cop tube, for the purposes specified.

Second. In combination with the above I claim a cop tube of a length sufficient to hold the entire cop, as set forth.

Third. I claim a removable spindle in combination with the button and long cop tube, operating in the manner substantially as set forth.

No. 22,221.—NEWIEL J. WILLIS, of Lawrence, Massachusetts, assignor to SIDERA CHASE, of Brooklyn, New York, and GEORGE A. FULLER, of said Lawrence.—*Improvement in the Manufacture of Weavers' Shuttles*.—Patent dated November 30, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—The improved manufacture of weavers' shuttle, made substantially as described, viz: of separate blocks and a hard rubber or indurated vulcanized caoutchouc shell, or body, or its equivalent, cast or moulded on the nose blocks, arranged substantially in manner as described.

No. 21,556.—IRA DIMOCK, of Mansfield Centre, Connecticut.—*Improvement in Machines for Sorting Silk or other Thread according to its size*.—Patent dated September 21, 1858.—The principle of this invention consists in certain means whereby a thread or threads of silk or other fibrous material produced by spinning, or obtained in any other way, is so directed on to a bobbin or other winding apparatus that it will be distributed or arranged upon different parts of said bobbin, according to its size or thickness.

This invention further consists in certain means for controlling the winding of the thread or threads on a series of bobbins, or spools, from the bobbin or winding apparatus, on the several parts of which it has been distributed according to its size or thickness, so that all of one thickness will be wound upon one bobbin or spool, and all of another thickness on another, and the whole be sorted in as many quantities of different size or thickness, but each having nearly the same thickness throughout, as may be desired.

The inventor says: I *claim*, first, a device by which the varying thickness of the thread is made to shift a traversing guide, or its equivalent, to distribute the thread upon a winding apparatus according to its thickness, consisting of two surfaces, one of which is caused to receive a reciprocating motion through the agency of variations in the thickness of the thread passing between them; whether the said surfaces consist of the peripheries of an eccentric wheel and roller, as represented in the drawing and described, or have any other form which permits of their operation in an equivalent manner.

Second. The movable carriage T, with its opening 7 and notches 7<sup>1</sup> 7<sup>1</sup>, applied in combination with the series of spools S<sup>1</sup> S<sup>2</sup> S<sup>3</sup>, and the bobbin D, or winder on which the thread has been distributed and arranged according to its size or thickness, and operating substantially as described to stop the winding operation as the unwinding of the thread from said bobbin or winder varies beyond certain parts thereof.



No. 21,481.—ERNEST BREDT, of New York, New York.—*Improved Manufacture of Skirting Material*.—Patent dated September 14, 1858.—In order to form this improved skirting a shuttle containing suitable cord or tape to form the loops is employed, and at suitable intervals this tape shuttle is thrown through the shed, so as to apply the tape thereto, that it may be interwoven with the warp threads, as shown at A A ; the warp threads are operated by suitable heddles or otherwise, in the modes well known in the art of weaving, so as to permit the tape to pass wholly beneath those warp threads where loops are to be formed, as shown at e e e, while it passes between the shed formed by the other warp threads in the same manner as ordinary filling, as shown at i i i.

The inventor says: I *claim*, as a new article of manufacture, the looped fabric described, having loops formed in it at intervals by combining the loop-forming material with the web in the process of weaving, substantially as set forth.

No. 22,262.—CYRIEL E. BROWN, of Millbury, Massachusetts, assignor to Himself, JOHN TENNEY and JOHN RHODES, of said Millbury.—*Improvement in Spindles for Throstle Spinning*.—Patent dated December 7, 1858.—In constructing this improvement a spindle A is made with a socket X in its end, to secure and sustain the movable spindle B ; the spindle A is fastened in the rail C, and on it is fitted the flyer D, with its whir E ; the flyer D is reversed, or placed in the position shown in the engravings ; below the whir is placed the loose collar F, and below it the strap or slip G, which sustains the whir and flyer and secures them to the frame or rail, which is made stationary, and the traverse motion, or rise and fall, to fill the bobbin or make a cop is given to the rail C, with its spindle, or *vice versa*. The motion given to the slip G and the rail C is stationary.

*Claim*.—The combination and arrangement of the stationary socket spindle, the loose spindle, and the reversed flyer and whir, when constructed and operated in the manner and for the purposes set forth and described.

No. 20,285.—JOHN MARLAND, of Lawrence, Massachusetts.—*Improvement in Machines for applying Cop Tubes to Spindles*.—Patent dated May 18, 1858.—In operating this machine the door *m* is raised and the tubes *p* are placed in the cavities *g*, the machine being turned with the openings *i* upmost for the purpose, and the drum H and rings being turned by manipulating the knob N, so that the alternate cavity in each longitudinal row is filled in succession ; the drum is then slipped lengthwise a distance equal to the width of rings I, and the other alternate cavities are filled in a similar manner. The spring E is now wound up and the machine is placed as seen in the engravings, the two extreme tubes O<sup>1</sup> resting upon the spindles S, the tubes being at a distance from centre to centre equal to the distance of the spindles apart.

*Claim*.—The machine for putting cop tubes upon spindles, operating in the manner substantially as set forth.



No. 20,920 —AMASA HOUGHTON, of Putnam, Connecticut, assignor to EBENEZER D. DRAPER and GEORGE DRAPER, of Milford, Massachusetts.—*Improved Spinning Frames*.—Patent dated July 13, 1858.—The nature of this invention consists in combining and arranging with the upright spindle A, and bolster B, a cup or oil receptacle D, such being made to extend below and concentrically around the bolster and to project from the spindle.

*Claim*.—The application of the cup to the upright spindle and the bolster so as to operate therewith, substantially in manner as specified.

No. 19,161.—WILLIAM W. SPAFFORD, of Peterborough, New Hampshire.—*Improvement in Spinning Machines*.—Patent dated January 19, 1858.—The nature of this improvement consists in constructing a spinning machine in such a manner as to dispense entirely with the drums or cord cylinders, the cords, whirls, throistles, fliers, and rings usually employed in spinning yarns, thereby greatly simplifying, rendering the machine more substantial, and reducing its cost.

*Claim*.—The construction of spinning machines having series of bush-gear wheels *n o, n o, n o*, and twisting thimbles *P P P Q* combined, and working on the circumference of a main central driving gear wheel *I I I I*, said central driving gear wheel combined with the annular plates *J J J K K K* and the adjustable graduating segmental plates *t t t t*, the whole arranged and operated substantially as described.

No. 21,333.—CHARLES GREENE, of Salem, Mass.—*Improvement in Top Rollers for Spinning Machines*.—Patent dated August 31, 1858.—The nature of this invention consists in the application of each top roller to its spindle in such manner as to enable the roller to rotate and rock, or tilt on each spindle, and for the purpose of attaining one or more new and useful results.

*Claim*.—The application of a top roller of a spinning machine to its spindle, so as to be capable of rocking and rotating them, substantially in manner and for the purpose specified.

No. 19,531.—JOHN B. WINSLOW, of New Bedford, Mass.—*Improvement in Machines for regulating the supply of Spinning Machines*.—Patent dated March 2, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The combination of the secondary clutch and the main clutch made to operate together upon one shaft V, and to be operated by the fibrous material acting in the draw-rollers, substantially as specified, the same causing the shaft V and the bevel gear U, and of course the delivering belt, to have their speed varied as circumstances may require, as before specified.

No. 21,242.—JAMES H. BRICKILL, of Taunton, Massachusetts.—*Improvement in Spinning Mules*.—Patent dated August 24, 1858.—The inventor says: The object of this invention is to effect the operations of “backing off” and “winding on” in a more positive manner than is possible in Mason’s mule, and thus to obviate the only serious defect in that mule.



*Claim.*—1st. Arranging the winding gear H loose on the stationary bushing C, or its equivalent, which surrounds and forms one of the bearings of the winding shaft, and applying a pall E attached to said gear, and a spring D fitted to the bushing, to engage the said gear with a ratchet wheel F fast on the winding shaft, in the manner described, whereby the winding shaft and winding gear are permitted to be entirely disconnected during the operation of backing off.

2d. The combination of the adjustable cam A *d* on the rock shaft P<sup>1</sup>, the loose pulley B working on the stationary bushing C<sup>1</sup>, or its equivalent, surrounding the winding shaft, the pall E<sup>1</sup> on said pulley, the clip spring D<sup>1</sup> on the bushing, and the ratchet wheel F<sup>1</sup> on the winding shaft; the whole operating together substantially as described to effect the backing off of the yarns. And in combination with the pall E<sup>1</sup>, is claimed the pin G, applied as described, to disengage said pall and permit the reversal of the shaft to wind on the yarns.

3d. The combination of the brake wheel Y on the winding shaft, the brake X, and the tooth *h*, on the belt shipper, substantially as described, for the purpose of stopping or reducing the momentum of the winding shaft previous to the operation of backing off.

No. 19,011.—SMITH BALDWIN, of St. Louis, Missouri.—*Improvement in Spinning Oakum.*—Patent dated January 5, 1858.—This machine combines the process of carding and spinning, the picked oakum being supplied to it, is converted into a merchantable state for the use of caulkers, &c., at a single operation.

The claim of the inventor further shows the nature of this improvement.

*Claim*, 1st. The employment of two series of revolving, straight or knife-edged combs J J, arranged and operating as described, for the purpose of taking the web of carded oakum in an unbroken sheet from the doffer.

2d. The employment, in combination with the said endless moving apron O, and the stationary apron *e*, belonging to the first conductors P P of the roller S, operating as and for the purpose specified.

No. 20,925.—BRITTON RICHARDSON, of Haydensville, Massachusetts, assignor to Himself and the HAYDEN MANUFACTURING COMPANY, of Haydensville aforesaid.—*Improvement in Machinery for Polishing Thread.*—Patent dated July 13, 1858.—In this invention the threads or yarns pass between the sizing rollers C C, and dressing and polishing rollers D D, then pass over a guide roller E, and are taken on spools in manner common to dressing and polishing machinery; the rollers D D, rotate respectively in the directions indicated by the arrows, and by their friction upon the threads or yarns, rub the size into them, take up all that is superfluous, and rub down the loose fibres and polish the surface.

*Claim.*—The construction of the dressing and polishing rollers with ribs *a a* covered with flannel, felt, or material of similar character, and arranged relatively to each other, substantially as described to produce elasticity of surface.



No. 21,487.—ALFRED B. COREY, of Franklin, Connecticut.—*Improvement in Moulds for Making Warp Dresser Guides of Glass or other Plastic Anti-Corrosive Material.*—Patent dated September 14, 1858.—The peculiar object of this invention is to enable a warp dresser guide to be moulded of glass and with very smooth eyes or yarn-holes. Glass eyes or yarn-holes not only resist acids as well as wear, but are capable of being moulded with very smooth surfaces.

The inventor says: I *claim* a new or improved manufacture of warp dresser guides made of glass, or its equivalent, and by moulding it on smooth cores and subsequently reducing the plate or the bars or projections made by the cores, substantially as described.

I also claim making a warp dresser guide in several separate sections A A, combined and applied in one frame, essentially as and for the purpose explained.

No. 21,488.—ALFRED B. COREY, of Franklin, Connecticut.—*Improvement in Warp Dresser Guides*—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: What I *claim* is my improved mould as made with plunger cavities *e e e*, of the kind described, in its bed plate B, a body or body and flange matrix *d*, a removable plunger guide C, or its equivalent, and a plunger D, provided with a series of projections or cores *g g*, the whole being combined and arranged substantially in manner and for the purpose as described.

No. 20,190.—WILLIAM BRADLEY, of Manchester, Pennsylvania.—*Improvement in Dressing and Sizing Warps.*—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that drying cylinders have been used heretofore in dressing frames, therefore I make no claim to them.

Neither do I claim as new the circular brushes.

I am also well aware that reeds and harness have been used heretofore in dressing machines, consequently I make no claim to them as such.

But I *claim* the combination of the section sleys or reeds, together with the warp sleys or reeds, and the harness for taking the lease or cross shed before the warp is sized in every alternate thread or threads, so as to allow the lease rods to pass with the warp to the yarn beam, and thus dispense with the use of combs, ravels, or guides, after the warp has passed through the size, substantially as described.

No. 21,988.—WATERMAN SMITH, of Manchester, New Hampshire.—*Improvement in Preparing Wool and other Fibres for Spinning.*—Patent dated November 2, 1858.—The nature of this improvement in the process of working wool and other fibrous substances, consists in heating the wool or fibrous substance to make it soft and pliable, and drawing it, while hot, to straighten and elongate the fibres or sliver of the fibrous materials worked while hot.

*Claim.*—In the process of drawing wool and other fibrous substances, heating the sliver of wool or other substance, and keeping it



hot while it is being drawn by passing it over or against, and in contact with heated surfaces, either moving or stationary, substantially as described, for the purposes set forth.

No. 19,816.—THOMAS MUSGRAVE, of Leeds, Massachusetts, assignor to ANNA L. MUSGRAVE, of Northampton, Massachusetts.—*Improvement in Machines for Burring Wool*.—Patent dated March 30, 1858.—A full description of this machine is too long to be given here. The wool is placed on the usual feeding apron, which passes around the rollers *c c*, and thence the wool is taken by a pair of feed rollers *d d* and by them presented to the burring cylinder *b*, by which it is taken, and by the rotating beaters *e*, the burs are rolled out of the fibres of wool and knocked off.

The inventor says: I do not claim the construction of the burring cylinder or strippers or beaters, nor the combination of beaters or strippers with a burring cylinder.

But I *claim* the combination of the second burring cylinder and its beaters, substantially as described, with the first burring cylinder and its beaters, substantially as described, by means of an interposed stripper, or an equivalent therefor, as described.

No. 21,538.—JOHN W. KENNEDY and JOHN T. PLUMMER, of Plainfield, Connecticut, assignors to Themselves and JOHN BACHELDER, of Lisbon, Connecticut.—*Improvement in Machinery for Drawing and Twisting Wool*.—Patent dated September 14, 1858.—The nature of this invention consists in a certain novel combination of tubes and drawing rollers, and means of operating the said rollers, by which the processes of drawing and twisting can be performed simultaneously, or either of the said processes separately, and by which, when the two processes are combined, great convenience is afforded for varying the relative degrees of draught and twist, to suit various lengths and quantities of the fibre.

The inventors say: We do not claim the attachment of the front drawing rollers in a rotating tube through which the roving passes, so as to give the twist between the back and front drawing rollers, as we are aware that such application of the rollers has been made with a different and less simple contrivance than we have employed to produce the rotary motion of the so attached rollers.

But we *claim*, first, the combination of the tubes *F* and *G*, the toothed drawing rollers, and the convolute groove *h*, the whole applied and operating substantially as described, to effect the draught and twist simultaneously, or either alone.

Second. Making the upper part of the frame which carries the back drawing rollers and the rollers, or their equivalents, which carry the roving to be drawn and twisted, adjustable vertically, substantially as and for the purpose specified.

No. 21,116.—THOMAS B. BUTLER, of Norwalk, Connecticut.—*Improvement in Operating the Teeth of Cylinders for Burring Wool, &c.*—Patent dated August 10, 1858.—This invention consists in so applying and operating the teeth of a revolving cylinder *B C*, which presents



a uniform peripheral surface to the action of the strippers, brushes, or other analogous devices, that as said teeth *c c* are severally caused by the rotary motion of the cylinder to approach the feed rollers *H H*, which supply the wool or other material, they are projected beyond the peripheral surface of the cylinder for the purpose of seizing said material. Immediately after passing the feed roller they are retracted into "pockets" within the peripheral surface of the cylinder. The claim and engraving further explain the nature of this invention.

*Claim.*—The application of teeth to a rotating cylinder having a uniform peripheral surface, in such a manner as to be projected beyond the said surface to catch the fibrous material to be operated upon, and afterwards retracted into pockets within the said peripheral surface, for the purpose of holding said material and presenting the greater portion of it upon the even peripheral surface of the cylinder without any obstruction to the action of strippers, brushes, or other analogous devices for burring, ginning, or cleaning it, operating in combination with said cylinder, substantially as described.

No. 19,690.—DANIEL DERMOND, of Philadelphia, Pennsylvania.—*Improvement in Regulators for Roving or Yarn.*—Patent dated March 23, 1858.—This invention is principally intended to be applied to the jenny for spinning rope yarns, but may be adapted to other machinery for drawing and roving, or spinning hemp or other fibrous materials of similar character.

The inventor says: I do not claim the controlling of the movement of the heckle chain through the agency of the upper feed roller.

But I *claim* the combination of the pulley *G*, the system of spur gearing, the shaft *A*, pulley *B*, and enclosed box *C*, with the ratchet *a* and position stop *d*, the whole arranged, applied, and operating substantially as and for the purpose set forth.

#### IV.—CHEMICAL PROCESSES.

No. 20,755.—JOSEPH ALBRECHT, of New Orleans, Louisiana, assignor to CHARLES E. RUHL, of said New Orleans.—*Improvement in Obtaining Pure Sulphurous Acid.*—Patent dated June 29, 1858.—The sulphurous acid gas, which accumulates below the head *d* of the cistern *B*, escapes through the tube *g h*, the coil *c c* of which is bathed in cold water, so as to cool the gas and condense any aqueous vapors which may have accompanied the gas. From the tube *g h* the purified sulphurous acid is conducted to a third cistern containing lime water and a small portion of neutral sulphate of lime.

The inventor says: I do not claim to have made any new discovery in chemical science, but I have applied known principles of science in such new and useful manner as to greatly improve the art of making pure sulphurous acid on a large scale.



I *claim* the described process for the purification of sulphurous acid gas by absorbing the acid in water or an alkaline solution, and the subsequent expulsion therefrom by the use of heat or steam, substantially as set forth, for the purposes described.

No. 21,711.—M. WERK, of Cincinnati, Ohio.—*Improvement in Apparatus for Manufacturing Acids*.—Patent dated October 5, 1858.—D is the vessel in which the decomposition is effected, furnished with a cock L near the top, to admit the body to be treated, which should be first melted. A is a boiler for generating steam, and B is a super-heating furnace containing a coil C to which the steam pipe E from the boiler is connected, and from which a pipe F leads to the vessel D and circulates within the vessel, in the form of a coil, which is perforated to admit the steam in numerous small streams.

The inventor says: I do not claim the use of the boiler as new, or the use of a furnace for super-heating steam as new, nor yet the use of a tank as new.

But I *claim* the combination of boiler, super-heating furnace, and tank for the production of fat acids without distillation or direct application of fire, as set forth.

No. 21,922.—LUIGI FERRARI CORBELLI, of Florence, Tuscany, and VINCENT RAITTI, of the Duchy of Modena, assignor to LUIGI FERRARI CORBELLI, aforesaid.—*Improvement in Preparation of Aluminium*.—Patent dated October 26, 1858.—This invention has for its object to obtain “aluminium” in a simple and more economical way than by the process heretofore employed.

The inventors say: We *claim*, first, the combination of operations set forth whereby we are enabled to reduce aluminium from earthy matters containing it as a base, or in combination with other matters.

Second. We claim the application of prussiate of potash to the clay or earthy matters, and the treatment of such clay or earthy matters with prussiate of potash in the presence of heat, substantially as described.

No. 21,923.—LUIGI FERRARI CORBELLI, of Florence, Tuscany, and VINCENT RAITTI, of the Duchy of Modena, assignor to LUIGI FERRARI CORBELLI, aforesaid.—*Improvement in Manufacture of Aluminium and Calomel*.—Patent dated October 26, 1858.—The object of this invention is to obtain “aluminium” in a simpler and much more economical manner than by the process heretofore employed for that purpose. The invention also applies to the manufacture of protochloride of mercury. In order to obtain aluminium by this improved method, the operator takes of rock alum 5931 parts, and of chloride of calcium 2076 parts; or of rock alum 5931 parts, and chloride of sodium 2190 parts; or of sulphate of alumina 4167 parts, and chloride of calcium 2076, or other salts having aluminium for their base may be substituted for those above mentioned.

*Claim*.—The process described of manufacturing at the same time aluminium and protochloride of mercury, by means of galvanic precipitation, as set forth.



No. 20,488.—GEORGE HABICH, of Roxbury, Massachusetts.—*Improvement in Apparatus for Manufacture of Beer*.—Patent dated June 8, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the combination, arrangement, and connexion of the copper, the mashing tun, the filtering vessel or vessels, and the hop vessel, substantially as specified, whereby the several operations connected with each of such parts can be conducted, through the agency of the heat from one furnace, and steam from its copper, substantially as specified.

I also claim combining and arranging the wort warmer with the copper, the hop vessel *c*, the filtering vessel or vessels *e e*, and the mashing tun *f*, so as to operate therewith substantially as set forth.

I also claim the combination of the condenser *d*, the hop vessels, the copper, the filtering apparatus *c*, and the mashing tun *f*, as connected and arranged so as to operate together, substantially as specified.

I also claim the arrangement and combination of the water heater *g*, the mashing tun *f*, the filtering apparatus, the hop vessel, and the copper, as connected and made to operate together, substantially as set forth.

No. 21,882.—JOHN JONES, of Baltimore, Maryland.—*Improvement in Machines for Making Candles*.—Patent dated October 26, 1858.—The claim and engravings explain the nature of the improvements in this invention.

The inventor says: I do not claim the supplying of the wick as described at fig. 3, nor the cutting of the candle by bringing the knife edges together.

But I *claim* the feeding and packing roller A with blades moving alternately in and out by the cam G, as shown in the drawings, or by an eccentric, or any other device for the purpose of feeding and working tallow, wax, or any other plastic material.

I also claim the combination of one or more feeding and packing rollers A with the various moulds for the different purposes to which it is applicable.

I also claim the entire combination of the machinery for the purpose of cutting and removing the candles as described in figures 1, 2, 3, 4, 5, and 6.

No. 21,706.—JOEL H. TATUM, of New York, N. Y.—*Improvement in Manufacture of Candles*.—Patent dated October 5, 1858.—The object of this invention is to indurate the exterior of tallow or other candles that are manufactured of inferior materials, in such a manner that a firm, smooth, and handsome external surface is obtained, on not liable to crack and shell off, and one that will prevent the candle from “guttering,” add materially to their illuminating power, and will not soften sufficiently in a warm climate to be deteriorated in value.

*Claim*.—Coating or covering candles manufactured of tallow or other inferior substance with a plurality of compositions formed of stearic acid and tallow in varying proportions, together with proper fluxes to give different degrees of fusibility, and also certain degree



of hardness and smoothness to the same, substantially as described, the candles being dipped into the several compositions in the order of the sequences, as set forth.

No. 21,697.—DUBOIS D. PARMELEE, of New York, N. Y.—*Improvement in Tools for Manufacturing Goods of Caoutchouc*.—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The instrument or tool for cutting sheets of India-rubber, or its equivalent, constructed substantially as described, consisting essentially of two jaws, provided with cutting edges shaped according to the form intended to be produced; when one jaw is to operate within the other so as to effect shear action for cutting forms at one stroke and leaving edges thereon, which are capable of being united in a more perfect and expeditious manner than has ever been done heretofore.

No. 21,122—AUSTIN G. DAY, of Seymour, Connecticut.—*Improvement in Treatment of Caoutchouc*.—Patent dated August 10, 1858.—This invention consists of a special process of making a hard, but highly elastic, rubber compound, by a process differing in the length of time, in the degree of heat, in the proportions of the ingredients, and in the mode of equalizing the heat, from that described by Nelson Goodyear, in his patent of 1851. A full description of the invention is too long for a place in this volume.

The inventor says: I do not claim in the broad, vulcanizing rubber or equivalent gums, and irrespective of the special process used and product made. Therefore—

What I *claim* is, running the heat for vulcanizing elastic hard rubber compounds as set forth through the several grades of temperature, and the several intervals of time described and illustrated in the specification.

I also claim making, as described, the elastic, hard rubber composition of two parts by weight of rubber, and one part of sulphur, when such composition is made preparatory to the running of the heat through the several grades of time and temperature, as set forth in the specification.

I also claim equalizing the temperature in the heating apparatus by mechanical means, or by a current of steam, or its equivalent, in the manner set forth.

No. 22,115.—DE GRASSE B. FOWLER, of New York, N. Y.—*Improvements in the Mode of Baking Articles Composed of Carbon*.—Patent dated November 23, 1858.—The claim explains the nature of this invention.

*Claim*.—The manufacture of articles from a composition of carbon and gas tar, or their equivalents, when treated with pressure and heat, and baked in the presence of lime, substantially in the manner described.



No. 20,047 —EDWARD DEISS, of Paris, France.—*Improvement in Manufacture of Sulphuret of Carbon*.—Patent dated April 27, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first. The placing of the retorts over the principal flue, in order to obtain an intense heat at the base of the retorts.

Second. The earthen retorts in combination with the crucibles or pots, placed either within or outside the retorts, for the object and in the manner set forth.

Third. The grate C for supporting the charcoal, and tube E, or its equivalent, for feeding in the sulphur in combination with the crucible or retort, forming a chamber for the purpose described.

No. 21,158.—JOSEPH THOMPSON, of North Wrentham, Massachusetts.—*Improvement in Cement for Roofing Purposes*.—Patent dated August 10, 1858.—The inventor says: In the process of compounding my invention, I make use of silicates of potash, soda, or silicates of the alkaline earths as an addition to tar, resin residues, oil residues, and resin and other oils for the purpose of rendering the thickened compound elastic, and resistant to extremes of natural heat or cold.

I do not claim any mixture of the various kinds of tar and oils, but adapt such materials to the intended use, being governed in choice by the consideration of price, and confine myself to the modification produced in such mixtures by the use of soluble silicates. I call my solid mixed compound Thompson's Improved Mastic Roofing, and my fabrics Thompson's Improved Felt.

Neither do I claim the broad ground of a combination of one or more alkaline or earthy silicates, with one or more tarry matters.

But I *claim* the composition substantially as described, consisting of an alkaline silicate, oil or oils, coal tar, or pitch of coal tar, and naptha, (water being added when necessary,) such being for the purpose or purposes set forth.

No. 20,985.—ABRAHAM BROWER, of New York, N. Y.—*Improvement in Water-proof Cements*.—Patent dated July 27, 1858.—By a compound of tallow, beeswax, resin, shellac, and glue, the inventor produces a water-proof composition. It causes the leather to remain soft and pliable, which will take polish and repel water.

The inventor says: I am aware that water-proof compositions for leather, consisting of tallow, suet, wax, rosin, tar, oil and India rubber have been employed. These I do not claim of themselves, singly or combined.

I am not aware, however, of shellac or glue ever having been employed in unctuous water-proof compositions for leather; but these I do not claim of themselves in my composition, apart from the other ingredients, as all are required combined, to render it so excellent for the purposes set forth.

What I *claim* is, the composition composed of all the ingredients described, and in about the proportions for the purpose set forth; the same constituting an improved new and useful article of manufacture.



No. 20,758.—J. BURROWS HYDE, of New York, N. Y., assignor to ANNA M. HYDE, of said New York.—*Improvements in Converting Peat into Charcoal*.—Patent dated June 29, 1858.—After the peaty matter has been partially dried on the platform, it may be passed through proper mills for reducing the size of the lumps; when it should again be exposed on the platforms, and when dried in a state to be carbonized, or it is first passed through a mill to grind it, and before carbonizing, it is exposed to artificial heat; for further desiccation there is employed a drying chamber of brick, with a series of small iron doors. In the top of this chamber is an opening, conducting the excess heat to other drying apartments.

*Claim*.—The process described of converting peaty matters into charcoal by previously submitting them to heat in a drying chamber, described and heated as set forth, and by carbonizing the material and subsequently cooling the same in the manner set forth.

No. 20,661.—E. FREEMAN PRENTISS, of Philadelphia, Pa.—*Improvement in Solutions for Cleansing Woollens, &c.*—Patent dated June 22, 1858.—The claim will explain the nature of this solution.

The inventor says: I do not desire to claim the employment of silicate of soda as an ingredient in the manufacture of soap, as that has been tried before.

Nor do I claim any mode of making alkaline silicates, nor yet the solution of alkaline silicates with chlorine or chlorides for bleaching and finishing textile fabrics, as these do not possess the cleansing properties of my solution prepared and used as described.

But I *claim* the employment of silicate of soda solution by itself, when prepared and used substantially as described for cleansing and softening the fabric in the fulling mill or wash tub as a wash mixture.

No. 20,697.—WILLIAM BUTCHER & WILLIAM A. BUTCHER, of Philadelphia, Pa.—*Improvement in Coating Metallic Surfaces*.—Patent dated June 29, 1858.—One gallon of linseed oil is taken, into which is placed from eight to twelve pounds of crude india rubber, the quantity being thus raised as the coating is required to be of greater or less consistency, which is boiled in a suitable vessel until the rubber is entirely dissolved in and thoroughly mixed with it.

The inventors say: We do not claim the coating described, nor the application of a coating or varnish, which is impervious to air, vapor, or water, to the surface of metals, to prevent the oxydation of said metals.

What we *claim* is the process of coating metallic surfaces described, consisting of heating the metal to be coated to about  $350^{\circ}$  of heat, containing the mixture prepared as described, and in placing the metal to be coated in a baking oven heated to about  $200^{\circ}$  of heat, to harden the coating, all as set forth.

No. 21,797.—SELAH HILER, of Haverstraw, N. Y., assignor to JOHN M. BERRIAN & CORNELIUS A. BERRIAN, of New York, N. Y.—*Improvement in Coating Metals*.—Patent dated October 12, 1858.—The nature of this invention consists in a new method of coating iron or steel



with silver, copper, or brass, or any alloy where silver or copper is used, whereby the two metals become so united that they can be rolled, hammered, drawn, or otherwise worked without causing their separation.

The inventor says: I do not claim heating the iron or steel to be coated with brass, copper, silver, or other metals or alloys of metals, to a white or welding heat, that having been done before.

But what I *claim* is the coating iron or steel with copper, silver, or brass alloys, where silver or copper is used, by bringing the iron or steel, while in a melted state, into contact with the coating metal and allowing them to remain until the two metals have become hard by cooling, substantially as specified.

No. 20,383.—SAMUEL WHITEMARSH, of Northampton, Mass.—*Improvement in Composition for Artificial Leather*.—Patent dated May 25, 1858.—The claim describes the nature of this invention.

The inventor says: I do not claim, broadly, the saturation of cloth and other fabrics in linseed oil containing umber or other substances.

But what I *claim* is the fabric specified, composed of cotton or other fibrous substance in a woven or unwoven condition, saturated or coated with a compound of linseed oil and burnt umber that has been prepared as described.

No. 19,778.—J. BURROWS HYDE, of New York, N. Y.—*Improvements in Composition for Coating Telegraph Wires*.—Patent dated March 30, 1858.—The claim will explain the nature of this composition.

The inventor says: I do not wish to be understood as confining myself to the precise proportions set forth.

But I *claim* an insulating compound for telegraphic wires, formed by mixing boiled linseed, cotton seed, or rosin oil, with natural or artificial asphaltum, substantially in the manner as described.

No. 21,285.—MARK TOMLINSON, of Birmingham, Connecticut.—*Improvement in Composition for Miniature Cases, &c.*—Patent dated August 24, 1858.—This invention consists of equal parts, by weight, of shellac, Breckenridge or cannel coal, and ivory black. The shellac and cannel coal are first finely pulverized, separately, and the three ingredients then well mixed together and fed between a pair of steam-heated rollers, one of which rotates at a higher velocity than the other, and are thereby ground into a pasty mass, which, while still hot and plastic, is cut and divided by a spatula or other instrument into cakes of sufficient size to form the articles or pieces to be made.

*Claim.*—The composition for useful and ornamental articles, made of shellac, Breckenridge or cannel coal, and ivory black, in about the proportions and in the manner substantially as set forth.

No. 22,233.—PAUL B. GODDARD, of Philadelphia, Pennsylvania.—*Improvement in Composition for Purifying Gas*.—Patent dated December 7, 1858.—This invention is for the purpose of purifying illuminating gas by the use of dissolved lime.



*a* represents the retorts used in the above named process; *b* the tube or cell into which the purifying materials are placed; *C* the communicating pipe between the two; and *d* the pipe leading to the gasometer.

*Claim.*—The use of lime dissolved in a saccharine solution, whether combined or not with other substances, substantially as set forth.

No. 19,756.—CLINTON DANIELS, of Elk Horn, Wisconsin.—*Improvement in Compositions for Tanning Leather.*—Patent dated March 30, 1858.—The claim will explain the nature of this composition.

*Claim.*—The combination and use of cream of tartar and bicarbonate of soda with catechu in making a liquor, and using the same for tanning hides and skins, no claim whatever being made to the discovery and use of the catechu alone for tanning purposes, by me.

No. 22,285.—WILLIAM W. GAIGE, of Rochester, New York.—*Improvement in Compositions for Tanning Leather.*—Patent dated December 14, 1858.—The nature of this invention consists in preparing and retaining the hides in a proper condition to receive the tan so as to gain about five-sixths of the time usually occupied for tanning the same weight of stock. Said process consists in the use of four separate liquors, named in the claim.

The inventor says: I do not claim to have discovered any new material for tanning except what is known more or less to the trade, but I do *claim* to have invented the use of salt and salsoda, in the proportion specified, for a preparatory liquor.

I also claim the combination of starch and catechu, in the proportion specified, for the second or first tanning liquor.

I also claim the combination of starch, catechu, and saltpetre, in the proportion specified, for the third liquor.

I also claim the combination of starch, catechu, and alum, in the proportion specified, for the fourth liquor.

No. 20,320.—OBADIAH S. BOYDEN AND MICHAEL C. FREDERICK, of Newark, N. J.—*Improvement in Composition for Varnishing Leather.*—Patent dated May 25, 1858.—The inventor says: To make the paste we use about one pound of flaxseed to about every two gallons of water, and boil it until all the glutinous property has been exhausted from the seed. Of this paste we use in the compound a quantity about equal to that of the linseed oil, without any camphene or spirits of turpentine.

The proportions of oil, umber and lampblack, or other coloring for glazed or japanned leather, cloth, silk, and paper, are varied by different manufacturers. We, however, generally use one pound of umber for every twelve gallons of linseed oil, boil it from five to seven hours, and when cool add two pounds of lampblack for every gallon of oil, and the above specified quantity of paste. After stirring, the compound is ready to use.

*Claim.*—The employment in the compounds used in the manufacture of glazed, japanned, or painted leather, cloth, silk, and paper—either wholly or in part as a substitute for camphene or spirits of



turpentine—of a paste made of the glutinous properties of flaxseed, substantially as and for the purposes set forth.

No. 20,569.—J. M. LEGARÉ, of Aiken, S. C.—*Improvement in Ivory Frame Composition*.—Patent dated June 15, 1858.—The composition is made as follows: A caustic alkali is prepared by dissolving 1 part of sub-carbonate soda in 8 parts of water, and adding 1 part of quick-lime slaked in 4 parts of water. Dissolve in 8 parts of this alkali, hot, 8 parts of transparent resin, and stir well until saponified or creamy in appearance. Then stir in 8 parts of kaolin or other neutral clay, adding 2 parts of resin, melted and mixed with  $\frac{1}{2}$  part of linseed oil; boil, remove from the fire, and stir in 4 parts melted glue. Finally work in by kneading, 6 or 8 parts of kaolin, which will give the proper doughy consistency.

*Claim*.—The employment of any saponified material, in combination with a neutral clay, as a basis of my composition, substantially as set forth in the specification.

No. 19,802.—JOSEPH THOMPSON, of North Wrentham, Mass.—*Improvement in Mastic Composition*.—Patent dated March 30, 1858.—The claim will explain the nature of this composition.

The inventor says: I do not claim any particular oily residue, or mixture of tar, pitch, or bitumen as a component part of a mastic, but use each of them as are best adapted to mixing with the new material, which serves as a basis.

Nor do I claim or use sand, brick dust, gravel, or any of the earths and oxides heretofore used in such mixtures.

I *claim* the right of using the naturally finely divided remains of silicious rocks, which have an alkaline action on test paper, as Fuller's earth, instead of sand, gravel, or other solid material.

No. 22,246.—ANDREW STEVENS, of New York, N. Y.—*Improvement in Water Proof Cork Composition*.—Patent dated December 7, 1858.—

The nature of this invention consists in saturating, and thereby coating and impregnating granulated cork with a solution which shall, while it renders it less susceptible of absorbing moisture, and adapts it to the purpose of filling quilted linings for overcoats, jackets, &c., thereby converting them into life preservers; and also emits an odor distasteful to bed-bugs and other vermin.

*Claim*.—As an improved article of manufacture, granulated cork, that is covered and impregnated with the composition specified.

No. 21,778.—N. C. RAYMOND, of Austin, Texas.—*Improvement in Composition used as Building Materials*.—Patent dated October 12, 1858.—The nature of this invention consists in the production or formation of a material for building purposes, in the shape of an unburned brick, solid and durable, and possessing the power or quality of being unaffected by rain, as soon as the drying process fairly begins.

*Claim*.—The application of pasture-fed cow dung, either in substance or solution, together with lime, either slaked or unslaked, or



other powerful alkaline substance, and charcoal, to the common clays or soils of the country, for the purpose of producing a building material, substantially as described.

No. 19,710.—CHARLES PAUVERT, of TARGÉ, France.—*Improvement in Compounds for Hardening Iron and Steel*.—Patent dated March 23, 1858.—The object of this invention consists in purifying the iron in combining it chemically with the carbon by cementation, and in converting it into cast steel of first quality.

The cementing substance is composed of the following ingredients : 33 parts of very finely powdered charcoal, 33 of highly aluminous clay, 33 of carbonate of lime or wood ashes, 1 part carbonate of soda, and 1 of carbonate of potash. The iron is stratified with the cementing substance, in an ordinary cementation oven, heated in the usual manner.

*Claim*.—The use of the ingredients described, compounded in the manner specified, for converting iron into steel.

No. 21,033.—WILLIAM W. TAYLOR, of Dartmouth, Mass.—*Improvement in Compounds for Protecting Trees from Insects*.—Patent dated July 27, 1858.—The nature of this invention consists in discovering a peculiar acrid, saline liquid, exceedingly poisonous to insects, which will not dry up or become hard, and which will not freeze during the ordinary temperature of February and March, the months when insects climb fruit trees.

The inventor says : The construction of the trough A in two pieces, as described, has not been claimed in the present application, although it is believed to be new ; but it is designed to claim it in a separate application.

I *claim* the application of the bitter water left in the manufacture of sea salt, or its equivalent, to destroy canker worms and other insects, in their attempts to ascend trees, as set forth.

No. 21,023.—LYMAN REED, of Baltimore, Md.—*Improvement in Compounds for Treating Potato Rot*.—Patent dated July 27, 1858.—In describing the liquid noticed in the claim the inventor says : Take potash and fish oil, and other suitable ingredients to make and constitute hard oil soap. Dissolve thoroughly, or in proportionate quantities, one gallon of this hard oil soap in thirty-two gallons of water. This liquid, or any other material, compound, or composition of whatever name or nature, possessing similar qualities of alkalies, stringents, oils, or other chemical properties poisonous to the insects, however applied, hot or cold, and harmless to the germinating virtue of the tuber, may be used to destroy the insects.

The inventor says : I do not broadly claim the application of heat or oils, or poisonous substances to destroy insect life, as this has been done before for other purposes.

But I *claim* the treatment of the potato preparatory to planting to the process set forth, subjecting it to solar or artificial heat, and then to the action of the liquid described, or any other analogous or equivalent thereto.



No. 22,407.—LUTHER ATWOOD, of Brooklyn, New York—*Improvement in Apparatus for Destructive Distillation*.—Patent dated December 28, 1858.—This invention consists in the arrangement and combination of a vertical distilling tower A, or fire place and receiving vessel F with an exhausting steam blast, or its equivalent, combined in such a manner that a continuous and controllable current of air enters the top of the distilling tower, by reason of the pressure of the atmosphere induced by the exhausting produced by the action of the steam blast, maintaining the combustion of ignited fuel placed in the upper part of the distilling tower over the substance acted on, the products of combustion passing downward upon and through said substance, which is thereby progressively decomposed, the products of decomposition passing downward through the cooler portions of the mass imparting heat thereto, and the liquids condensed in the lower part of the distilling tower flowing into the receiver with which the exhausting steam blast is connected.

*Claim*.—The combination and arrangement of a “distilling tower” and receiving vessel, substantially as described, with a steam blast or its equivalent in the combination, for the purpose of producing an induced current, substantially in the manner and for the purposes set forth and described.

No. 21,693.—A. NORMANDY, of London, England.—*Improvement in Distillation of Fresh Water from Salt Water*.—Patent dated October 5, 1858.—This apparatus consists essentially of four parts: 1st, the evaporator; 2nd, the condenser; 3d, the priming box; 4th, the refrigerator; which four principal parts are securely bolted and fastened together. They are connected with four other accessory, namely: 5th, differential or equilibrium valve for regulating the pressure of steam; 6th, a water regulator; 7th, a steam trap; and 8th, a filter.

*Claim*.—The process set forth by which aerated and non-aerated fresh water are obtained by distilling sea water.

No. 22,408.—LUTHER ATWOOD, of Brooklyn, New York.—*Improvement in Apparatus for Destructive Distillation of Wood, &c.*—Patent dated December 28, 1858.—This invention consists in the use of the inner cylinder of metal V, which may be made of sufficient length to hold one, two, or three layers of cord wood packed endwise, provided with a perforated bottom G, and a suitable bale or handle U. Also in the manner of protecting the material while in process of decomposition from ashes from the combustion chamber A<sup>1</sup>, by the arrangement of the passages N leading from the annular passage E into the distilling tower.

The inventor says: I *claim*, first, the use of the inner case V, in the manner and for the purposes set forth.

Second, the described arrangement of the flues N leading from the annular passage E into the distilling tower A, substantially and for the purposes set forth.

Third, the combination with the distilling tower of the combustion chamber or fire place A<sup>1</sup>, when so arranged as to supply products of



combustion by a downward draught through the fire place, substantially as described.

No. 19,210.—GEORGE SEITZ, of Easton, Pennsylvania.—*Improvement in preparing Mash for Distillation*.—Patent dated January 26, 1858.—In this invention two mash tuns are provided A and B the one raised above the other, each furnished with rotary mixers D, so that when they are both thoroughly digested they can be mixed to the bottom of the tun.

*Claim*.—Steeping or infusing the maize and rye or other grain or malt separately, so that each may be subjected to the degree of temperature necessary for the proper separation or dissolution of their parts, and then uniting or mixing the two infusions, substantially as and for the purpose set forth.

No. 20,026.—DAVID ALTER and SAMUEL A. HILL, of Freeport, Pa.—*Improvement in Revolving Retorts for Distilling Coal, &c.*—Patent dated April 27, 1858.—This invention consists in giving a continuous rotary motion to cylindrical metallic retorts for the extraction of the volatile products of coal, bituminous shale and other minerals, for the purpose of subjecting the contents of the retort to a more uniform heat than can be obtained where the retort is stationary, and also greatly expediting the process without in any way diminishing the amount of product from a given quantity of coal, &c.

The inventors say: We do not claim originality or novelty in the use of cylindrical metallic retorts for dry distillation, nor yet do we claim the use of such retorts, so constructed as to be capable of being shifted on their axis from time to time so as to expose a different portion of the retort to the action of the fire at each successive change, for the purpose of preventing the retorts burning out so soon, as seen in Gengembre's patent.

But we *claim* the use of retorts, so constructed, as before described, as to revolve continuously on their axis during the process of distillation, substantially in the manner and for the purpose set forth.

No. 20,562.—JOHN HOWARTH, of Salem, Mass.—*Improvement in Apparatus for Distilling Oils*.—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, in combination with the still the reservoir *f* placed above the level at which the oil is to be kept in the still, and the worm heated as described, or in any other manner whereby heated oil under pressure is fed into the still in such a manner as to keep the oil therein always at one and the same level, as set forth.

2d. The use of a pipe *k* communicating with the several vapor spaces within the still, as described, whereby the condenser is relieved from the incondensable gases that are generated in the still, and which prevent the effective condensation of the vapor.

3d. A cutter formed in the neck of the still, for the purpose specified.



No. 20,587.—THOMAS D. SARGENT, of Washington, D. C.—*Improvement in Retorts for Distilling Oils from Coal*.—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The use of the cylinder retort A made of clay, and so arranged as to revolve upon its axis, during the process of distillation, or in place of a whole revolution, making only three-fourths of a revolution and turning back again, thus producing an oscillating motion for a clay retort, in the manner and for the purposes set forth.

No. 21,143.—JOHN McCUE and W. B. McCUE, of Freeport, Pa.—*Improvement in Retorts for Distilling Oils from Coal*.—Patent dated August 10, 1858.—The nature of this invention consists in constructing and operating cylindrical metallic retorts for the purpose of extracting the volatile products of coal, bituminous shale and other minerals.

The inventors say: We are aware that there is a retort patented by Alter and Hill, which revolves continuously. We are also aware of Gengembre's patent, but both of these we disclaim, as our retort obviates difficulties which both of these patents are subject to.

But we *claim*, 1st. The employment of the connecting pipe C, located in the retort B, in other than a central position, whereby we are enabled to conduct off the oleaginous products of the coal, while the said retort partially revolves backward and forward on its axis as is fully set forth.

2d. We claim providing the retort B, with the longitudinal ribs, *d d d*, for the purpose of agitating the coal, and preventing its sliding, when the retort turns, as is fully described.

No. 20,371.—DANIEL REID, of Washington, N. C.—*Improvement in Apparatus for Distilling Spirit of Turpentine*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the melting and straining of the crude turpentine before its introduction to the retort.

But I *claim* the employment, in connexion with the still, of a steam box C, constructed with strainers *a b* of such form and capacity as to receive the barrels of crude turpentine, all substantially as and for the purposes described.

No. 20,465.—LEONARD BELLINGRATH, Jr., of Fayetteville, N. C., assignor to DUNCAN McLAURIN, WILLIAM McLAURIN, and JAMES W. STRANGE, of said Fayetteville.—*Apparatus for Distilling Turpentine*.—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The arrangement of the enclosed air space between the alembic A and outer jacket or case B when said air space is furnished with air passages and an indicator of heat, so that the enclosed air may be heated by conduction instead of by the direct application of the fire, as set forth.

No. 19,184.—MATTHEW DELANY, of Clinton, Mass.—*Improvement in Apparatus for Dyeing Yarn in the Skein*.—Patent dated January



26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* combining with the vat A and the movable frame B, two series of supporting rollers K K K L L L, the pressure rollers I I I, and the key-shafts C<sup>1</sup> C<sup>1</sup> and their gears or mechanism for rotating such supporting rollers when the skeins are lowered into the vats, the whole being made to operate together substantially as described.

I also claim combining with the supporting-rollers and their sustaining frames the mechanism for separating the skeins or keeping them separate, and from overriding one another while they are in revolution.

I also claim the mode of constructing such skein-separating mechanism, viz: of a combination of crossed levers and two slide frames, arranged so as to operate together, substantially as set forth.

I also claim the mode of making the dipping-frame, viz: of a frame B and two twining frames M M, applied so as to operate together, substantially as described.

No. 19,701.—DAVID B. KERR, of New York, N. Y.—*Improvements in Dyeing Yarn Parti-colored*.—Patent dated March 23, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim* the method of arranging yarn in folds or loops of greater or less strength as a figure may require previous to the application of the dye, substantially as set forth.

I also claim the method of folding yarn as above set forth, in combination with the clamping of the same previous to the application of the dye, so as to preserve the integrity of the folds or loops, substantially as set forth.

I also claim the method of parti-coloring yarn by submitting it while clamped in folded loops of greater or less length to the action of the dye, substantially as set forth.

No. 20,034.—DENNIS BRIGHAM, of New York, N. Y.—*Improvement in Apparatus for Evaporating Brine*.—Patent dated April 27, 1858.—This invention has for its object the evaporation and purifying of brine. The engravings and claim will give an idea of its nature.

The inventor says: I disclaim all the separate parts of the described apparatus.

But I *claim* the arrangement of the steam-heaters N<sup>1</sup> N<sup>2</sup> N<sup>3</sup> N<sup>4</sup>, with the boiler B B<sup>1</sup>, pans c<sup>1</sup> c<sup>2</sup> c<sup>3</sup>, and cistern D, respectively, in the manner set forth and for the purpose specified, so that the pans and cistern may be heated by one steam-pipe K<sup>1</sup> K<sup>2</sup> K<sup>3</sup>, substantially as described.

No. 20,631.—D. M. COOK, of Mansfield, Ohio.—*Improvement in Pans for Evaporating Cane Juice*.—Patent dated June 22, 1858.—Fig. 3 represents a side view of the evaporator, with the heading c c resting on the rockers f f f f, together with the rubbers g g, the friction



segments *n n*, and the flues *o o*, which prevent the displacement of the rockers *f f f f*, and the levelling-frame *p p* on which the rockers rest.

The inventor says: I do not wish to be understood as claiming the corrugation of sheet-metal into flanges and spaces, so as to form an evaporation with transverse partitions running from opposite sides, thereby producing a continuous and opposite current in the fluid evaporated, as such is a well known device.

But I *claim* the evaporator, in combination with fireplace and flue *k*, the rockers *f f*, the levelling-frame *p*, the rubbers *g*, and the flanges *o*, as described, and for the purposes set forth.

No. 20,687.—H. O. AMES, of New Orleans, Louisiana.—*Improvement in Arrangement of Steam Coils in Evaporating Vessels*.—Patent dated June 29, 1858.—This is an improvement in the arrangement of the steam radiating pipes, with pockets *F F* to collect the water of condensation, and pipes to return the same to a waste-chamber *B C*, whereby a uniform temperature is obtained over the whole horizontal area of the pan.

*Claim*.—The arrangement of the convolute curved radiating pipes *E E*, the pockets *F F*, the straight water-pipes *G G*, and the steam and water chambers *B C*, in the manner substantially as described.

No. 20,438.—ELI J. MANVILLE and SAMUEL G. BLACKMAN, of Waterbury, Connecticut.—*Improvement in Gas Apparatus*.—Patent dated June 1, 1858.—From the under side of the top of the condenser *d* there descends a cylindrical flanch *f*, which terminates in a series of teeth that pass a short distance beneath the surface of the water in said condenser *d*. The gas-conducting tubes *e e* pass from opposite sides of the retort *a*, out through the sides of the cylinder *c*, and then descend vertically and enter the top of the condenser outside of the toothed flanch *f*.

The inventors say: We *claim* the peculiar combination and arrangement of the fire-chamber, the retort, and the condensing chamber, substantially as set forth.

We also claim combining the descending toothed flanch *f* with the cover of the condensing-chamber, for the purpose of dividing said chamber into two compartments, which communicate with each other by means of a series of small induction apertures at the surface water, substantially as set forth.

No. 21,072.—AUGUST HENDRICKX, of New York, N. Y., assignor to VICTORIA HENDRICKX, of said New York.—*Improvement in Apparatus for Condensing and Purifying Gas*.—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, a gas-condenser which has the junction between its upper and lower chambers *B C*, accomplished by means of a water-channel *G* formed round the upper edge of the lower chamber *c*, and a flanch *F* formed round the bottom of the upper chamber *B*, in combination with stationary rods *D D*, which sustain the upper section and adjusting suspension screws *E E*, or their equiva-



lents, weights, cords, and pulleys, substantially as and for the purposes set forth.

Second. The specified arrangement of condenser and purifier on the same level and within the same chamber, substantially as and for the purposes set forth.

No. 21,142.—HENRY LYLES, of Washington, D. C.—*Improvement in Apparatus for Generating Gas*.—Patent dated August 10, 1858.—The nature of this invention consists in the inner perforated chamber to be used for consuming solid matter, and this with the cock for the purpose of ascertaining the condition of the retort and the pipe for discharging continually the gas tar.

The inventor says: I do not claim any of the members of this apparatus, singly or individually.

But I *claim* the peculiar arrangement of the perforated chamber A. as constructed with the retort  $\alpha$ , gauge-cock  $e$ , stop-cock  $g$ , and siphon pipe  $f$ , when they are constructed, combined, and operated in the manner and for the purpose specified.

No. 21,914.—ALLEN B. WILSON, of Waterbury, Connecticut.—*Improvement in Apparatus for Generating Gas*.—Patent dated October 26, 1858.—The object of this invention is to produce a generator or retort to be used in the manufacture of grease or oil gas which shall obviate many of the difficulties now incident upon the use of such articles. The apparatus represented in the engravings will serve as an example of the principles of this invention.

The inventor says: I *claim*, first, the combination of a still with passages leading therefrom downward to a pipe, and so combined therewith as to protect the still from heat, the two being constructed and acting substantially as specified.

Second. I claim, in combination, a gas still, converting passages, and a valve, all combined substantially in the manner and for the purposes set forth.

No. 20,534.—JOHN ABSTERDAM, of Boston, Massachusetts.—*Improvement in Apparatus for Manufacturing Gas*.—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim the naphthalizing boxes or contrivances made as described on pages 145 and 146 of Parnell's Applied Chemistry, or any other contrivance similar to them, my invention being different from such contrivances, as I employ for the passage of gas, spiral or serpentine unobstructed passages made of cloth, or any other fibrous or porous material, connected with shallow chambers or reservoirs, or their equivalents.

In carrying out my invention I do not employ a capillary material, which shall so fill the channel or gas passage as to materially obstruct the flow of gas through the same. And, furthermore, by my arrangement of the gas passage with reference to each chamber and its leading pipes, I effect such an extended circuit of gas in contact with the vaporizing surfaces as to enable me to bring the whole apparatus into



a very small compass, in comparison with others in use, and having the same amount of naphthalizing power.

I do not claim the apparatus made of metal or other suitable material merely, as such solid apparatus is merely the skeleton, to sustain the passages or tubes made of cloth, which line such solid chambers, accurately forming a tubular passage of cloth through which the gas, air, or saturated vapor is driven.

But I *claim* the arranging of tubular passages G made of cloth, or other similar porous fabric, which elevate by capillary action the fluid in the chamber, allowing space sufficient for the passage of the æriform fluid, and allowing complete saturation of the latter, in the manner and for the purpose specified.

No. 20,541.—WILLIAM BEAUMONT, of Paterson, New Jersey.—*Improvement in Apparatus for Manufacturing Gas*.—Patent dated June 15, 1858.—The arch F has a series of small flues *g g g* through it, or through its abutments which lead into the side flues H H, which extend through nearly the entire length of the retort A, and turn up into the upper side flues J J, which return to near the front end of the retort, and then turn into the top flue K, which extends from front to rear of the retort. The small holes *m m m* allow the flame to play along the concave portion of the retort. The holes *n n n* allow the flame to act on the rear end of the retort.

*Claim*.—In combination with the retort, the series of longitudinal flues H J K, and their communicating passages *g m n*, when arranged substantially as described.

No. 21,095.—ANDREW WALKER, of Clermont, N. H.—*Improvement in Apparatus for Purifying Gas*.—Patent dated August 3, 1858.—A is the horizontal box or washer, to which is attached pins or teeth *j j*, and on the top of which is placed the overflow or check box B, in the bottom of which is aperture H opening into the washer. The purifier or vertical washer C is attached to the check box B, extending about three-fourths of the distance across the box from each side, alternately passing each other, leaving shelves *b* the whole distance of the vertical box; near the top of said box is pipe G for the admission of water; the gas escapes at pipe E.

*Claim*.—The construction of the cover of the horizontal washer A, with teeth *j*, as described and for the purpose set forth.

No. 21,096.—JOHN WATERHOUSE, of Little Falls, N. Y.—*Improvement in Apparatus for Purifying Gas*.—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* introducing the gas into the purifier underneath a table, or its equivalent, near the surface of the lime water, so that it (the gas) shall pass horizontally through the lime water a sufficient distance to effect its purification before it can rise to the chamber above, as set forth, by which means I obviate much of the pressure heretofore encountered in lime water purifiers, and get a better yield at a great saving of retorts, as stated.



No. 21,121.—W. F. DANOUSKY, of Allentown, Pa.—*Improvement in Apparatus for Purifying Gas*.—Patent dated August 10, 1858.—This invention relates to that class of gas works which use the dry lime process for purifying the gas, and consists in the use of a simple and economical apparatus for purifying gas, which obviates the necessity of keeping attendants of more than ordinary intelligence as laborers, and enables the operator to use not only bituminous coal, but any and all of the well known materials out of which gas is commonly made.

*Claim*.—The use of the purifier D, when arranged and combined with a gas-trap E, in the manner and for the purpose described.

No. 22,391.—ANDREW WALKER, of Claremont, N. H.—*Improvement in Apparatus for Purifying Gas*.—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The combination and arrangement of separate chambers opening into each other in such manner that a current of water or fluid may be made to flow through the series in thin falls or sheets, or from one chamber to the next in a thin fall or sheet, substantially as described, and a current of gas be made to pass upward and through the several chambers, and successively through and against the several falls or sheets of fluid, essentially as explained, the chambers being disposed one over the other in column, and the whole being to effect the purification of gas for illumination, as described.

No. 21,001.—AUGUST HENDRICKX, of New York, N. Y.—*Improvement in Valves of Gas Apparatus*.—Patent dated July 27, 1858.—The nature of this invention consists in the application to the main pipe of gas retorts of a water valve with a loose cover, which is perforated round its sides or circumference with a series of small holes, and constructed so as fit into and rest upon the bottom of said water chamber or channel, and have its perforations closed by the water in the same, and allow communication between the retort A and the receiver.

*Claim*.—In the application of water valves to the main pipe of gas retorts, the use of a loose perforated cover C a, substantially as and for the purposes set forth.

No. 20,110.—THOMAS WALKER, of New York, N. Y.—*Improvement in Apparatus for Generating Carbonic Acid Gas*.—Patent dated April 27, 1858.—The object of this invention is to generate carbonic acid gas and charge liquids with the same in such a way that no gas can escape during the process.

The inventor says: I *claim* the bottle E and chamber D connected together, provided with the ball valve g, so that communication is obtained between the chamber D and bottle E by the tilting or inclining of the same, when these parts are combined with and applied to the receiver A in the manner and for the purpose substantially as specified.

No. 19,777.—JOHN G. HOCK, of Newark, N. J.—*Improvement in Gas Generators*.—Patent dated March 30, 1858.—This invention consists in certain provisions for vaporizing the tar from coal or other



gas, and returning it in a state of vapor to the retort to be decomposed and converted into gas.

The inventor says: I do not claim broadly to be the first inventor of retorts having perforated bottoms and chambers, nor do I claim the chambers B<sup>1</sup> C, separately considered, substantially as shown and described.

What I *claim* is the arrangement together of the rain retort B, chambers B<sup>1</sup> C, and open space c, substantially as and for the purposes set forth.

No. 20,177.—WILLIAM N. TAYLOR, of Philadelphia, Pa.—*Improvement in Gas Generators*.—Patent dated May 4, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the combination of the retort with a series of movable partitions, connected so that all can be taken out together, and so arranged as to divide the retort into a series of chambers through which the gas circulates in its passage from the lower chamber to the discharge pipe, for the purpose described.

Second. Dividing these chambers by means of punctured diaphragms, or their equivalent, arranged as described, in order to retard the passage of the gas, and bring the entire volume in contact with the heated metal, for the purpose described.

No. 20,897.—GEORGE W. R. SEAL, of Winchester, Virginia.—*Improvement in Gas Generators*.—Patent dated July 13, 1858.—A retort, divided into two chambers A and B, is employed, in one of which the substance to be converted into gas is made into vapor, and in the other the vapor is converted into permanent gas by passing through a packing of cellular character, so that it comes in contact with a great amount of heating surface. The invention consists in the employment of this cellular packing of shavings or scraps of copper or its alloys, by whose superior conducting powers the vapors are more rapidly decomposed than when pebbles or scraps of iron are employed to form cellular packing in the retorts. An extra diaphragm E is also employed in the second chamber to support a portion of the packing, and it is movable to vary the depth of the packing to suit the various materials that may be employed to make the gas.

The inventor says: I do not claim the use of scraps of iron, or of pebbles, or pieces of stone in a gas retort, to form an extensive heating surface.

But I *claim* the employment of a secondary movable diaphragm applied within the retort, so as to support a portion of the cellular packing, and to be capable of being raised and lowered with such portion of the packing, substantially as and for the purpose set forth.

No. 19,686.—SAUNDERS COATES, of New York, N. Y.—*Improvement in Method of Cleaning Gas Generators*.—Patent dated March 23, 1858.—This improvement consists in admitting atmospheric air into the retort at its upper part when necessary to clean it, and at the



same time creating a draught in the retort by means of an opening from the upper part into the chimney, or into the fire under the retort, whereby the gaseous products of combustion will be drawn off and the air caused to enter.

*Claim.*—The mode of clearing the retort by the admission of atmospheric air at the top of said retort, in combination with the draught-pipe for carrying off the products of combustion; the whole being arranged in the manner substantially as set forth.

No. 22,463.—CHARLES N. TYLER, of Washington, District of Columbia.—*Improvement in Apparatus for Generating Illuminating Gas.*—Patent dated December 28, 1858.—The claim and engravings give an idea of the nature of this invention.

The inventor says: I *claim*—1st. The peculiar arrangement and combination of the retort for generating the hydrogen gas with the main retort for the generation of the illuminating gas, substantially as set forth.

2d. Elongating and contracting the rear of the main retort, in the manner and for the purpose substantially as set forth.

3d. Connecting the rear end of the hydrogen retort with the contracted end of the main retort, in the manner and for the purposes substantially as set forth.

No. 21,027.—J. MILTON SAUNDERS, of Cincinnati, Ohio.—*Production of Illuminating Gas.*—Patent dated July 27, 1858.—The nature of this invention consists in making an illuminating gas by passing the vapor of water and a hydro-carbon, previously mixed into a retort containing carbon, and bringing said retort up to a high red heat, which produces the gas in question.

*Claim.*—Carrying the mixed vapors of water and hydro-carbon, formed in the manner described, into a retort B, containing carbon at a high red heat, for the purpose of producing an illuminating gas.

No. 19,575.—DAVID C. KNAB, of Paris, France.—*Improvement in Manufacture of Gas.*—Patent dated March 9, 1858.—The coal is brought in wagons or cars *d* above the charge-hole C; then it drops into the distilling chamber, where it is spread over the sole by means of rakes, hoes, or any other suitable implements. The orifice C and the doors are hermetically closed, and the valve *g* is raised to allow the gas, tar, and ammonia to escape. The latter two products are condensed and carried off by means of a siphon tube into a cistern.

*Claim.*—The manufacture of gas and of coke, and other secondary products, in furnaces constructed and operated substantially in the manner set forth.

No. 20,453.—JOHN L. STEWART, of East Boston, Massachusetts.—*Improvement in Manufacture of Gas.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* mixing the gases from the several retorts of a series alternating in one or other of them, and charging the retorts successively at stated intervals, as set forth, when the retorts are



arranged with valves and passages of communication with each other, whereby the gases of different qualities are commingled before being cooled, as described, for the purpose specified.

Second. I claim conducting the gas from one retort to the other through a non-conducting stopper, or other equivalent device temporarily inserted in the mouth-piece, as set forth.

No. 20,130.—THOMAS SHAW, of Philadelphia, Pennsylvania, assignor to Himself and C. S. PATTERSON, of said Philadelphia.—*Improvement in Gas Metres*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The construction of the oscillating drum B in such a manner as to contain the sealing fluid or seal W, with lever L attached to said drum; the whole for operating the valve G by the oscillation of the drum, as set forth, in combination with the inlet and outlet passages *y* and *z*, as described.

No. 21,663.—JOSEPH E. FISK, of Salem, Massachusetts.—*Improvement in Gas Metres*.—Patent dated October 5, 1858.—A denotes the upper gas chamber or reservoir, B the valve seat, and *a b c d* the tubes or passages connecting the valve seat with the working parts of the metre. On the valve seat rests the valve C, secured by the square socket *s* to the crank-shaft D, which passes down through the valve and into the chamber E and through the partition K and into the chamber H, it being connected with the cranks *e* and *f* and the operative parts.

The inventor says: I do not claim the employment of two flexible bellows in two separate chambers.

Nor do I claim the mode of constructing the flexible bellows, as exhibited in the United States patent numbered 9,591, wherein such bellows is made of two metallic shallow dishes or partitions joined at their edges by a flexible connexion. This differs essentially from my invention, wherein a sack I or J, separate from and arranged within a flexible enclosing case M or N, is employed; as in my invention the sack alone constitutes the gas-receiving chamber, and can be readily removed from its flexible case whenever necessary without requiring the enclosing case to be removed from the metre.

I *claim* the described improved arrangement of the partition K and the shaft D, the cranks, valve C, and valve seat B, with respect to the chambers E H and A, and the pipes or passages *a b c d*, the same enabling one shaft D only necessary to the operation of the valve by the two sacks I and J.

I also claim combining with each flexible sack I J a flexible enclosing case M or N, arranged so as to operate therewith, as specified.

I also claim the arrangement and application of the pipe F with respect to the valve C and the case of the metre, the same being in manner and for the purpose as specified.

No. 20,680.—CHARLES C. LLOYD, of Philadelphia, Pa., assignor to WILLIAM HOPPER and ROBERT H. GRATZ, of said Philadelphia.—*Improvement in Valves for Dry Gas Metres*.—Patent dated June 22,



1858.—This improvement relates to the mode of constructing and operating the valve of the dry metre so as to cause the valve to keep the valve seat *g g* free from deposit, and also to cause the rotary motion to be always imparted to it in the plane parallel to that in which it is to be rotated.

The inventor says: I *claim*, first, the construction of the rotary valve *e e*, with a series of breaks or edges as at *f p p* and *q q*, arranged and operating so as to scrape the upper surface of the valve seat.

Second. The drip *K* and valve seat *g g*, arranged and operating so as to collect and carry off any liquid deposit in the metre.

Third. The valve carriage *D D*, arranged and operating substantially as described.

No. 20,058.—H. P. GENGEMBRE, of Rock Island, Illinois.—*Improvement in Liquids for Gas Metres*.—Patent dated April 27, 1858.—The nature of this invention consists in replacing the water used in gas metres by means or use of a fluid compound composed of deliquescent earthy and metallic salt, or salts, at such a degree of saturation as will insure the fluidity of this solution at any ordinary winter temperature, and in keeping the upper stratas of the liquor always in contact with a substance or substances which will maintain the chemical neutrality of the salt or salts employed.

The inventor says: I do not claim replacing water in wet gas metres by a liquid not affected by frost, as I am aware that alcohol has been employed for that purpose; nor do I claim keeping a salt solution neutral by the presence of a base or carbonate.

But I *claim* the use of an aqueous solution of deliquescent metallic and earthy salt or salts in gas metres and the suspension in the upper stratas of the liquid of a base or carbonate of the base of the salt or salts employed, substantially in the manner and for the purpose as set forth.

No. 22,267.—ROBERT M. POTTER, of New York, N. Y., assignor to WILLIAM MCKENZIE, of said New York, and said MCKENZIE having reassigned the same to said POTTER.—*Improvement in Valves for Gas Metres*.—Patent dated December 7, 1858.—*a* is the inlet supply pipe; *b* is the eccentric sliding valve, constructed with a centre vent and circular gas canal, formed in the under side of the valve between two eccentric rings by a continuous groove making a complete circle; *b* is also constructed with a piston which has a fixed point at bracket *c*. This piston is the centre of equipoise, equipollence, and semi-equal motion, and prevents *b* from a possibility of rotating or being displaced.

*Claim*.—The eccentric sliding valve *b*, when constructed, arranged, and operated substantially as described.

No. 20,625.—JOHN H. COOPER, of Philadelphia, Pennsylvania.—*Improvement in Gas Regulators*.—Patent dated June 22, 1858.—The lid or cover *H H* with an air-hole *x* is secured to the casing *A A* by the screws *j j*. The gas enters first from the metre into the valve chamber *E*, thence through the valve openings *e e* into all the interior



part of the instrument beneath the inverted cup G, making its exit through the nozzle C.

The inventor says: I am aware that gas regulators in which an inverted cup loaded with weights and attached to a valve are in common use. This I do not claim.

But I *claim* guiding the inverted cup G by an arm P when the latter is loosely jointed to the casing and to the cup in the manner specified.

I also claim combining the coupling screw D, the valve seat *e e*, chamber E, and the inclined outlet B with each other, for the purposes set forth.

No. 21,048.—CHARLES F. HOLZER, of Philadelphia, Pennsylvania, assignor to WILLIAM B. SMITH and WILLIAM BROMWELL, of Philadelphia aforesaid.—*Improvement in Gas Regulators*.—Patent dated July 27, 1858.—This invention consists in certain arrangements of the working parts and of the passages by which the spring *g* and guide for the valve *d* and cup B are protected from the injurious effects of exposure to the gas, and provision is made for the return, through the inlet opening of the regulator of water, tar, or other foreign substance that may be condensed from the gas; thus obviating the necessity of a siphon or waste receptacle attached to the regulator.

The inventor says: I do not claim the combination of an inlet and outlet chamber, a valve, an inverted cup, and a spring, as I am aware that such combination is used in most gas regulators.

But I *claim* the peculiar arrangement, as described, of the inlet and outlet chambers, the valve, the inverted cup, the spring and guide pin, whereby the spring and the guide are effectually protected from contact with the gas, and provision is made for the return of all liquid matter through the inlet pipe, as fully set forth.

No. 21,022.—J. H. POWERS, of Newark, New Jersey.—*Improvement in Gas Regulators*.—Patent dated July 27, 1858.—This invention relates to that kind of regulator whose valve is of the form of an inverted cup, with notches in its sides, and works in a seat of quicksilver; said valve having its opening controlled by the pressure of the gas upon an inverted cup floating in a basin of quicksilver. This invention consists in a certain arrangement of the quicksilver basin valve seat, inverted pressure cup valve, and inlet passage, whereby great simplicity of construction and effective operation is obtained.

The inventor says: I do not claim the inverted pressure cup, nor the grooved or notched inverted cup-shaped valve working in a seat of quicksilver, as the cup is specified in several patents, and the valve is specified in combination with the cup in my patent of September 1, 1857.

Nor do I claim any of the other parts of the regulator, as separately considered.

But I *claim* the arrangement of the annular pressure cup B C and regulating valve D in the double annular quicksilver basin *e f*, whose inner and outer channels *e* and *f* are arranged at a distance apart to form between them a passage *g*, through which a communication is



established between the interior of the cup and the atmosphere, all substantially as described.

No. 21,281.—W. G. STERLING, of Bridgeport, Connecticut.—*Improvement in Gas Regulators*.—Patent dated August 24, 1858.—The valve seat K is adjusted in its place by pressing the gasometer E down the cross-bar L on the rod G H, forces the valve seat K to its place, or the cross-bar may be attached to the valve seat, and the rod play through it, so as to press it to its place. The screw M holds it in its position.

The inventor says: First. I *claim* the described adjustable conical-shaped valve seat, with its cross-bar, or its equivalent, and valve attached.

Second. I claim the set screw in combination with the valve seat, or any other construction substantially the same.

Third. I claim the combination of the movable valve seat, valve, and cross-bar, attached in any manner whatever to a gasometer, disk, diaphragm, or other device, by which said regulator can be cleaned, without the least derangement to the machine, as described, or in any other form, or in any other way equivalent thereto.

No. 21,544.—SALMON BIDWELL, of Chicago, Illinois, assignor to the NEW YORK CAR AND STEAMBOAT GAS COMPANY, of New York, N. Y.—*Improvement in Gas Regulators*.—Patent dated September 21, 1858.—The nature of this invention consists in the mode of operating the cock by the spring and diaphragm by the pressure of gas in the regulator.

A is the cylinder, B the top of the cylinder, C the inlet for admitting the gas to the cylinder through the cock; C<sup>1</sup> the outlet, D the pipe through which is inserted the spiral spring, and which is regulated by a screw; E the screw passing into pipe D, with rubber washer *e* to make it gas-tight.

*Claim*.—The cock F operated by the diaphragm *c*, rod *b*, and spring *a*, as described and set forth.

No. 21,765.—WILLIAM MALLERD, of Bridgeport, Conn.—*Improvement in Gas Regulators*.—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim broadly the use of the rising and falling of the reservoir 2 for the purpose of regulating the pressure of the gas.

But I *claim* arranging the graduated lever 4 with the adjustable weight 17 in combination with the reservoir 2 and the valve 10 in such a manner that by raising the reservoir the valve is closed and the supply of gas stopped, so that the pressure of the reservoir can be regulated by adjusting the weight 17.

And in combination with the lever and reservoir I claim admitting the gas to the reservoir by means of a small tube 8 which is contracted toward its upper end so that impurities carried up by the gas are deposited outside of said tube without being able to interfere with the working parts of the gas regulator.



And I further claim arranging the stud 21 in combination with lever 4, rod 9, and valve 10, in such a manner that by depressing the stud 21 the supply of gas may be ascertained without raising the cover of the regulator.

No. 20,375.—I. T. SLOAN, VOLNEY SMITH, MANUEL HOOVER, and R. M. BRIGGS, of Jackson, Cal.—*Improvement in Gas Retorts*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The employment, in the manufacture of gas from wood, of a cylindrical retort A placed horizontally, and having a door to close the opening for the reception of material, swinging upon hinges and shutting with a staple and eye to receive a wedge, the other end T being closed with a clamp and wedge.

No. 20,448.—WARREN A. SIMONDS, of Chelsea, Mass.—*Improvement in Gas Retorts*.—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim broadly the invention of double-chambered retorts, whether the said chambers are placed side by side or separately. Nor do I claim a tubular retort connected at either end by joints and plugs.

But I *claim*, first, a common coal retort A, with a separated return chamber B above and outside, but connected at the back end with the lower chamber A, when the whole is made in one piece and forms a continuous retort, as set forth.

Second. I claim placing an escape pipe *b* directly under the stand pipe E, which conducts the gas to the hydraulic main for the purpose of drawing off the tar and preventing it from returning to the retort B to crystallize and clog up the said retort.

No. 20,671.—CHARLES N. TYLER, of Washington, D. C.—*Improvement in Gas Retorts*—Patent dated June 22, 1858.—This invention consists in so constructing the chamber in which the hydrogen is generated, arranging and connecting it with the other retort in which the dry distillation takes place, that the hydrogen shall be brought in contact with the carburated hydrogen gas as it enters the passage that leads from the retort into the hydraulic main, at which point, immediately beneath the outlet of hydrogen retort, the main retort is formed with a cavity *a*, into which the heavy carbonaceous matter is precipitated by the force of the current of hydrogen from above.

The inventor says: I *claim*, first, the combination of the cavity *a* with the outlet *b* of the hydrogen retort, in the manner and for the purposes substantially as set forth.

Second. I claim elongating the end of the retort A so that the cavity *a* may be arranged on the inside of the furnace for the purposes set forth.

No. 21,169.—ALFRED MARSH, of Detroit Mich., assignor to himself, E. HALL COVELL, JOHN Q. DUDLEY, and ROBERT HOLMES, of said Detroit.—*Improvement in Gas Retorts*.—Patent dated August 10,



1858.—The nature of this invention consists in the construction of apparatus for the manufacture of gas from resin or oils ; in providing a vertical retort A, and placing within said retort a spiral column B supported upon feet, and having a tube or flue E passing through its entire length, being perforated with holes at right angles with the flue, and between the threads of the spiral column, the whole column being surrounded by an iron case J fitting close to the column.

The inventor says : I do not claim the retort only as in connexion with my arrangement, nor do I claim the mode of introducing the gas-making material into the retort as set forth, nor the exit of the gas as described, nor the conducting the fumes from a retort by a pipe, only in connexion with my arrangement as described ; but

I *claim*, in the construction of apparatus for the manufacturing of gas from resin or oils, the spiral column resting on feet, with the flue through the centre ; and also the apertures between the threads of the spiral column in combination with the case, in the manner and for the purposes substantially as set forth.

No. 22,434.—WILLIAM H. LAUBACH, of Philadelphia, Pa.—*Improvement in Gas Retorts*.—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Dividing the retort into an upper and lower chamber by means of a movable plate D, said plate being so constructed and arranged in respect to its flanches, or projections in the retort, and being so weighted that the amount of vapor admitted into the communication between the two chambers shall be proportionate to the rapidity with which it is generated, and that the vapor shall pass from the lower chamber in a stream so attenuated and so exposed to red hot surfaces as to insure its being converted into permanent gas on entering the upper chamber, as set forth.

No. 20,567.—WILLIAM H. LAUBACH, of Philadelphia, Pa.—*Improvement in Retorts for Generating Gas*.—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says : I *claim*, first, the construction of the retort with a convolute passage made in two parts, fitting together in the manner substantially as described, whereby a great amount of heating surface is obtained for the conversion of the vapor into permanent gas, and provision is made for cleaning out the passage.

Second. Combining the movable cover G with the valve E of the charge by means of a T-shaped head on the valve stem and pins *g g*, inside the said cover, or their equivalent, to regulate the supply of fluid material to the retort while in operation by turning the said cover.

No. 19,655.—JOHN W. SMITH, of Washington, D. C.—*Improvement in Portable Gas Retorts*.—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says : I do not claim any apparatus which admits of the passage of gas between heated surfaces, when the passages are



only opened at intervals by the pressure of gas or steam, as such has been before described.

But I *claim* the combination of the horizontal retort B with the casing C, when the former is constructed with an open end, and so arranged in reference to the latter that a space shall be constantly left open for the passage of the gas between the retort and the casing, in the manner described and for the purpose specified.

No. 19,900.—DAVID L. WEATHERHEAD and JAMES T. HENRY, of Philadelphia, Pennsylvania, assignors to Themselves, JOHN M. SMITH, and WILLIAM P. CAMPBELL, of said Philadelphia.—*Improvement in Portable Gas Retorts*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The exterior horizontal cylinder B in combination with the interior horizontal perforated cylinder C, charged with pumice stone, when the cylinders are so constructed and arranged that the material from which the gas is to be made shall flow into the annular space between the two cylinders, and the gas when generated shall pass through the body of porous material for the purpose of purification in the manner described.

No. 21,887.—GEORGE W. KRAFT, of Philadelphia, Pennsylvania.—*Improvement in Gasometers*.—Patent dated October 26, 1858.—*a* is the shell of the upper section, *b* the shell of the lower section, *c* angle iron legs, *d* angle iron rings of cup, *e* stay irons to strengthen cup, *f* bead iron on edge of cup, *g* plate ring of square cup, *h* the cup rim.

*Claim*.—The construction and application of the V-shaped cup or lute, whether as shown by the inner section figure 2, or by the inner or outer section figure 3; and this I claim whether it be accomplished precisely as described, or in any manner equivalent thereto, producing substantially the same result.

No. 20,988.—P. T. BURTIS, of Chicago, Illinois.—*Improvement in Method of Counterpoising Gasometers*.—Patent dated July 27, 1858.—This invention is applicable to telescopic gasometers, or to gasometers in which the holder is single. It consists in a certain arrangement of the chains connecting the counterbalance weights of the holder or any of its sections, whereby any binding in the tank and uneven rising and falling, and the loss of gas, and other bad consequences thereby caused, are prevented.

*Claim* —The arrangement of the chains *e e*, in combination with the weights *d d* and chains *a a*, substantially as described, whereby, when there is any tendency on the part of the holder, or the section thereof, to which said weights are applied, to work unevenly, the highest side is relieved from the counterbalance weights, and two of the said weights are brought wholly into action on the lowest side, substantially as explained.

No. 19,668.—JOSEPH WEISMAN, of Philadelphia, Pennsylvania.—*Improvement in using Graphite in Reducing Metals*.—Patent dated March 16, 1858.—The crucible is filled with the ore or metals to be



operated on; mixed and imbedded in powdered graphite, it is then luted over as secure as possible with graphite paste or clay, so as to exclude as much as possible the atmosphere. The crucible is then subjected to heat of a greater or less intensity, according to the nature of the materials it contains, for a period of from six to twenty-four hours.

*Claim.*—The use and mode of using graphite, plumbago, or black lead, for the purposes and in the manner set forth and described.

No. 21,761.—JOHN KEANE, of New York, N. Y.—*Improvement in Apparatus for Preserving Malt Liquors.*—Patent dated October 12, 1858.—This invention consists in a diaphragm or bag of India-rubber, of a size and form to constitute a lining to half of the vessel to which it is applied, secured by its edges all around the interior of the vessel near the middle thereof. This invention is particularly advantageous in its application to beer casks, but may be applied to vessels containing any kind of liquors.

*Claim.*—The diaphragm or bag of India-rubber, or other similar flexible material, of a form to fit simply to half of the cask or other vessel, and attached all round the middle of the same, so as to operate in the manner described for the purpose set forth.

No. 19,974.—CHARLES F. SPIEKER, of New York, N. Y.—*Improvement in Preparing Manure-Beds.*—Patent dated April 13, 1858; patented in England, August 19, 1857.—The claim of the inventor will give the reader an idea of the nature of this invention.

The inventor says: I disclaim distinctly the discovery of the fact that ammonia is absorbed to a small extent by oxyds of iron, or aluminous earth in its natural state, or that it is produced by the decomposition of animal substances in contact with air and water.

But I *claim* the use of the peculiar process by which I produce, condense, and fix ammonia, and change it into salts of ammonia, in ammonia-beds made of aluminous earth, silicates of alumina, or the oxyds of iron, sheltered from the rain and excessive temperature, and charged with diluted acids or weak solutions of such salts for the acid of which ammonia has a greater affinity than the base with which it was combined, in the manner and for the purpose set forth.

No. 21,835.—ISAAC G. JOHNSON, of Spuyten Duyvil, N. Y.—*Improvement in Bottles for Containing Mercury.*—Patent dated October 19, 1858.—This bottle is made of malleable cast-iron, as follows: A pattern is first made of the desired form from which the exterior is moulded; but instead of so forming the core as to vent only at the top through the neck, the vent or core is passed clear through, leaving a small hole through the bottom of the bottle. The bottle thus cast is filled with carefully prepared decarbonizing compound with which it is also surrounded, and is then submitted to a heated annealing furnace in the usual way.

*Claim.*—The mercury bottle formed and composed of malleable cast-iron, substantially in the manner and for the purpose set forth.



No. 22,152.—J. L. ALBERGER, of Buffalo, N. Y.—*Improvement in Kettles for Trying Oils*.—Patent dated November 30, 1858.—This invention relates to the construction and arrangement of a boiler or tank, surrounded by a steam jacket, or having steam introduced in its interior and made to revolve upon its bed or cradle, for the purpose of emptying it of its contents, and used with or without a condensing apparatus, the object being to boil or try fats, oils, &c., by direct or indirect action of steam.

*Claim*.—A horizontally placed cylindrical boiler or tank, surrounded by a steam jacket, or having the steam admitted directly into it, when said boiler or tank is capable of being turned over in its cradle and have all its contents run out at the man hole, as described; and this is claimed, whether said boiler be used in connexion with a condenser or without it, substantially as set forth.

No. 22,406.—LUTHER ATWOOD, of Brooklyn, New York.—*Improvement in Manufacture of Pyrogenic Oil*.—Patent dated December 28, 1858.—This invention is a new method of manufacturing oils from bitumens, resin, schist, and fatty bodies that yield pyrogenic oils, and that are soluble, or in part soluble, in the products of their decomposition, and that melt or intumesce during decomposition; also coal, peat, wood, and other substances yielding pyrogenic oils which may be worked by this process.

*Claim*.—Forming oleaginous vapors from substances yielding pyrogenic oils, by the action of the heat of a properly regulated current of products of combustion passing over and above the surface of the mass operated on, with or without the aid of external heat, substantially as described and for the purposes set forth.

No. 21,805.—LUTHER ATWOOD, of Brooklyn, New York.—*Improvement in Extraction of Volatile Oils, &c., from Coal*.—Patent dated October 19, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the gradual and progressive formation at a comparatively low temperature of oleaginous vapors, and oil from coal, or other substances yielding pyrogenic oils, by the gradual and progressive action of the heat of products of combustion upon and through the mass substantially as described, and substantially for the purposes set forth.

Second. The immediate removal of the oleaginous vapors and volatile products of decomposition from the point of formation away from further action of the heat conducing to and resulting from their production, through the remainder of the mass and apparatus, by means of a properly regulated current of products of combustion, substantially as described.

Third. Condensing the liquid volatile products of distillation within the body of the distilling tower, and during the continuous distillation of the solid materials, substantially as described.

Fourth. Obtaining crude oil from coal, and other solid substances yielding pyrogenic oils, by the combined and successive operation of the above-mentioned methods of treatment.



No. 20,205.—WILLIAM G. HUYETT, of Williamsburg, Pennsylvania.—*Improvement in Paint Compounds*.—Patent dated May 11, 1858.—To seventy parts of calcined iron ore is mixed twenty parts of burnt limestone and ten parts of clean charcoal, or mineral coal; they are all ground together into a fine powder; the powder is then mixed with linseed oil and reduced to proper consistency for painting, when it forms a beautiful brown-colored paint.

The inventor says: I do not claim the use of calcined iron ore, lime, or coal, except when compounded so as to form a paint as described by me. To the best of my knowledge and belief no such paint compound has ever been known or used.

I *claim*, as a new article of manufacture, a paint compound composed of ground calcined iron ore, lime, and carbon, in about the proportions specified.

No. 19,014.—A. C. CHURCH, of Union City, Michigan.—*Improvement in Paint Vehicles*.—Patent dated January 5, 1858.—The component parts of this invention and their proportions are as follows: Linseed oil, one gallon; soft soap, one gallon; distilled rain water, one gallon; oil of turpentine, four (fluid) ounces; gum mastic, one-fourth of an ounce; caoutchouc, one-eighth of an ounce.

The compound is made in the following manner: The oil of turpentine, gum mastic, and caoutchouc, are put into a well corked bottle and well shaken or agitated together several times a day for three or four days, and then allowed to rest for a short time. When the compound liquid solution of gum mastic and caoutchouc has been thus obtained, the soft soap is to be mixed with the distilled rain water, and the mixture heated over a fire till it boils, stirring it well during the heating. The linseed oil is also placed on the fire and heated to the boiling point.

*Claim*.—The compound for mixing paints, composed of the within specified materials, combined in the manner substantially as and in about the proportions set forth.

No. 20,993.—J. S. D'ORSEY, of New York, N. Y.—*Improvement in Paints*.—Patent dated July 27, 1858.—This paint is intended to be used as a substitute for oil paint in painting the plaster, walls, and ceilings of buildings, and other plaster work. The claim shows its composition.

*Claim*.—The paint, composed of carbonate of lead or oxyd of zinc, ground in oil, mixed with carbonate of lime, and reduced by the compound vehicle specified, either with or without the addition of pulverized sand or sulphate of baryta and sulphate of copper.

No. 21,810.—JAMES H. BEARDSLEY, of New York, N. Y.—*Improvement in Composition for Paints*.—Patent dated October 19, 1858.—The inventor says: To produce white paint I slake forty-six pounds of lime in ten gallons of water in a closed vessel, to exclude air. When the lime is slaked, which will take about two hours and a half, I remove the cover and add and thoroughly mix therewith seven pounds of bleached or fair brown sugar, preferring the former. After



this I add and mix one quart of the best New Orleans molasses, which should be previously boiled for ten or fifteen minutes, and this should be added while at or near the boiling point. I next add and stir in fifteen pounds of whiting and five pounds of dry oxide of zinc, both in fine powder. And, lastly, I add three quarts of salt and ten ounces of refined borax, and, when well stirred to incorporate all the ingredients, the whole is allowed to stand over night and then run through an ordinary paint mill. The composition then only requires to be reduced to the proper consistency with water to be used with the brush.

*Claim.*—The composition of matter, substantially such as described, to be used alone as a white paint, or in admixture with pigments for colored paints, as set forth.

No. 22,015.—THOMAS G. CHASE, of Philadelphia, Pa.—*Improvement in Rendering Paper and other Fabrics Incorrodible.*—Patent dated November 9, 1858.—The nature of this invention consists in the application of paraffine and naphtha to paper, and other similar fabrics, by which it is rendered proof against the corrosive action of caustic alkali.

*Claim.*—The inventor says: I am aware that other compositions of matter have been used to protect caustic alkali from the action of air and moisture, such as resin and beeswax, for which a patent was obtained by George Thompson, October 21, 1856. I do not claim any of these, and am also aware that a patent has been granted in England to William Benson Stones, for the use of paraffine to render textile materials impervious to wet, (volume 55, page 339, *Mechanics' Magazine*.) I do not claim the use of it for this purpose.

But I claim the application of paraffine, either alone or in combination with naphtha, for the purposes described, as set forth, so as to secure paper and other fabrics from the corrosive action of caustic alkali, in order that it may be put up securely in small parcels.

No. 19,657.—ANSON TAYLOR, of Brooklyn, New York.—*Improvement in Preparing Silk for Use with Felting Substances.*—Patent dated March 16, 1858.—The nature of this invention consists in exposing silk fibres to sufficient heat to partially destroy their strength and tenacity, and render the same adapted to use with fur, wool, or other felting material in the carding, picking, bowing, or blowing operations, in preparing the fibrous material, and to the subsequent operations of shrinking, planking, and finishing the felted goods.

The inventor says: I do not claim the use of steam, or a moderate degree of heat in the operation of preparing fibrous materials for carding, the same operation simply to soften the fibres temporarily.

But I *claim* the method described of preparing silk fibres for use with fur or other felting material, substantially as and for the purposes specified.

No. 22,185.—NATHAN B. MARSH, of Cincinnati, Ohio.—*Improvement in Preservation of Flesh for Food.*—Patent dated November 30, 1858.—The nature of this invention consists in the process, or any essential part thereof described for converting live stock, such as beef



cattle, hogs, and sheep, or the hams or rounds thereof, into cured and smoked meats for the market, so that such live stock may be slaughtered in any numbers, in any climate in any season of the year, in a much improved style.

The inventor says: I *claim*, first, preparing carcasses for injection, and injecting the same in the manner set forth.

Second. I also claim injecting or transmission of the saline solutions at a temperature below or above the freezing point, or thereabout, as set forth, so that the flesh may be cooled from within outward.

Third. I claim the injection of portions of the carcasses, as well as the whole beast, with the solutions indicated, in the manner set forth.

No. 22,132.—CHARLES FRANCIS LEOPOLD OUDRY, of Paris, France.—*Improvement in Preserving Surfaces of Cast or Wrought Iron*.—Patent dated November 23, 1858.—The claim explains the nature of this invention.

The inventor says: I *claim*, firstly, the employment of a varnish, or of successive varnishes, insulating, metallizing, and intermediary between the object to be coated with copper (whether the same be metallic or non-metallic) and the protecting copper itself, all or part of said varnishes being composed of certain metallic substances, united with fat or essential oils, and with gummy, resinous, bituminous, or asphaltic substances, substantially as described and for the purposes set forth.

Secondly. The coating of all kinds of objects with copper, by the employment of one or several varnishes in succession, previous to the galvanic coppering obtained directly in a bath of sulphate of copper, *i. e.* without the intervention of a bath of cyanide of copper, substantially as described.

No. 22,249 —JOHN WARREN HARTNETT, of Cincinnati, Ohio.—*Improvement in Preventing Incrustation of Steam Boilers*.—Patent dated December 7, 1858 —The nature of this invention consists in introducing into the steam boiler oleaginous matter in a fluid state. For this purpose any suitable oil is used. It further consists in a novel method of using the oil in the boiler to prevent its forming a dense coating, retarding the evaporation, and to facilitate removal of deposit from the boiler at any and frequent intervals without arresting work, or stopping continuous generation of steam.

*Claim*.—The means and manner specified of injecting oil or other fatty matter, in a liquid state, into the boiler, for the purposes set forth, whereby the said oil or fatty matter is fed to the boiler simultaneously, and in connexion with the water, as described.

No. 19,036.—NICHOLAS MARY AINÉ, of Philadelphia, Pennsylvania.—*Improvement in the Process of Dyeing Silk, &c* —Patent dated January 5, 1858.—This improvement consists in first submitting the silk in the piece to the action of steam, and then passing it over a series of rollers D E F and A N covered with felt, which revolve partially immersed in troughs, and which contain a solution of dye



heated by steam, and then passing the goods into or through a chamber, where it will be submitted to the action of steam again. The piece of goods is kept distended or stretched laterally during the entire operation by rollers, and the felt-covered rollers are given such a velocity of revolution that they shall rub against the goods at a velocity from two to four or five times greater than the velocity at which the fabric or piece of silk moves.

*Claim.*—Submitting the fabric to the combined action of steaming and to that of friction-rollers, during or after the dyeing process, as described.

No. 19,948.—JOHN PRESTON, of Dorchester, Massachusetts.—*Improvement in Process of Extracting Fat Oils from Seeds.*—Patent dated April 13, 1858.—The nature of this invention consists in, or is based on, the principle of engaging the other proximate principles with which the oils and fats are naturally associated in a solvent, for which they exert a superior attraction.

*Claim.*—The employment of either molasses or a sugar syrup under circumstances and in manner substantially as set forth.

No. 20,048.—EDWARD DEISS, of Paris, France.—*Improvement in Processes for Extracting Fatty Matters.*—Patent dated April 27, 1858.—Patented in France, November 13, 1858.—A represents a vessel containing the sulphuret of carbon; it is made of metal, and is provided with two stop cocks, one at the bottom, *a*, and the other on the top, *b*. This vessel is tightly closed by means of the cover E; through the cover passes the pipe K, reaching to the bottom of the vessel. This pipe is cut out somewhat at the lower end, and communicates through the upper part with the still B. The pipe F, provided with a stop cock, is designated to supply the amount of sulphuret lost during the operation. From the cover E rises a pipe, G, with a stop cock, *f*, which communicates with the air-pump; next to tube G is another pipe, H, and stop cock *g*, to carry off the air from the reservoir A.

The inventor says: I declare that I do not in any way confine myself to the particular construction and arrangement of apparatus in connexion therewith.

But I *claim* the extraction of oils, grease, fats, and resins from wool cloth, bones, oleaginous seeds, refuse, and other substances containing the same, whether naturally or artificially impregnated, by passing through them mechanically sulphuret of carbon, in the manner substantially as described.

No. 20,353.—SILAS P. KNIGHT, of New York, N. Y.—*Improvement in Production of Electrotpe Plates.*—Patent dated May 25, 1858.—The wax mould or matrix is made in the usual manner and coated with plumbago; it is then placed upon a table with the face upward, and a saturated solution of blue vitriol or sulphate of copper is sprinkled upon it, moistening nearly the entire surface. Upon this is scattered from a fine sieve, or muslin bag, metallic dust or fine powder. The dust being sifted upon the plate, is then dis-



tributed as uniformly as possible over its surface by means of a flat camel's hair brush. The mould is then cleansed by immersion in pure water, or by allowing the water to flow over it. It is then placed in the battery and the connexion made as usual.

The inventor says: I do not claim the deposit of a thin metallic coat or film upon the moulds previous to immersing them in the battery.

But what I *claim* is the treatment of the plumbago-coated moulds with a solution of the sulphate of copper and the dust of iron, by which a metallic film is produced as described.

No. 20,760.—ETHAN CAMPBELL, of Cambridgeport, Massachusetts, assignor to HENRY THAYER, of said Cambridgeport.—*Improvement in Apparatus for Rectifying*.—Patent dated June 29, 1858.—The nature of this invention consists in so arranging and combining a distillatory apparatus as to perform all operations of distilling, rectifying, and evaporating, in a simple manner and in a vacuum, thus gaining a lessened expense for heat, in rapidity of production, and purity of product.

The inventor says: I do not claim that the pan, condenser, column, or receivers are of my invention.

But I *claim* the general combination of the different parts, with the attachment of the air-pump so as to produce the effect desired.

I claim combining with the rectifying column B the vertical discharge pipe *j*, and the series of horizontal pipes which connect it with the column B, as set forth.

No. 20,967.—GARDNER WATERS and JOHN W. HARNETT, of Cincinnati, Ohio.—*Improved Apparatus for Rectifying*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We do not of course claim the principle of continuous distillation, nor any of the various modes by which Pisterious, Derosne, Coffey, and others have rendered its practical application more and more simple and easily regulated. Neither do we claim the beer and spirit columns, or the general arrangement and mode of operating Coffey's apparatus.

But we *claim*, first, the use of solid plates *a*, with bent pipes *e*, or their equivalents, instead of perforated plates in the beer column, in the manner and for the purposes set forth.

Second. The use of the exhaust steam regulator in distillation, by this or other apparatus, whereby steam of any degree of tension may be taken from the boiler and reduced to any less desired uniform pressure, and whereby the exhaust steam from engines may be regulated in like manner, using the exhaust steam from boilers, together or separately as may be desired, in the manner and for the purposes set forth.

Third. The combination of the beer and spirit columns A and B with the exhaust steam regulator, with or without the whistle valves, acting as described and for the purposes set forth.



No. 20,938.—GUSTAVUS CUPPERS, of College Point, New York.—*Improvement in Manufacture of Hard Rubber Goods*.—Patent dated July 20, 1858.—In describing his improvement the inventor says: In the first place I prepare the India rubber or gutta percha for hardening in the usual manner, and place it in the mould made of tinfoil, or in tin or cast brass, or pressed tin, or any other material which moulds are made of. I then subject the same to the action of steam or hot air, or heat of any kind, during a period of from one-half an hour to three hours; the length of time will depend upon the proportion of sulphur mixed with the India rubber.

The inventor says: I wish to have it distinctly understood that I do not claim as my invention the heating or curing process, as it is called, nor the combination of India rubber and gutta percha with sulphur, nor any other combination already patented and described.

But I *claim* the improvement in the hardening or curing process of caoutchouc or India rubber, and of gutta percha, by which articles wares, goods, and merchandise may be manufactured into any desired size, form, or shape, substantially as described.

No. 22,265.—HIRAM L. HALL, of Beverly, Massachusetts, assignor to THE BEVERLY RUBBER COMPANY.—*Improvement in Manufacture of Vulcanized Rubber Goods*.—Patent dated December 7, 1858.—The claim explains the nature of this invention.

*Claim*.—The improvement in the manufacture of rubber goods of every description, which consists in combining fibrous materials with waste vulcanized rubber rendered soft and plastic, in the manner described, whether such fibrous materials be such only as are found in old or waste vulcanized goods or fabrics, or new fibrous materials added to the rubber compound.

No. 22,218.—THOMAS J. MAYALL, of Roxbury, Massachusetts, assignor to Himself and GEORGE N. DAVIS, of Boston, Massachusetts.—*Improvement in the Manufacture of Hard Rubber*.—Patent dated November 30, 1858.—In this invention one pound of India rubber is incorporated by grinding with 5 ounces sulphur, to which is added gradually, as the grinding proceeds, 1 ounce of olive oil, the whole being thoroughly mixed and vulcanized in the usual manner.

*Claim*.—The use of olive oil, when incorporated with other materials, in the manufacture of hard vulcanized rubber, as described, for the purpose specified.

No. 19,172.—HIRAM L. HALL, of Beverly, Massachusetts, assignor to THE BEVERLY RUBBER COMPANY.—*Improvement in Restoring Waste Vulcanized Rubber*.—Patent dated January 19, 1858.—The claim of the inventor explains the nature of this invention.

*Claim*.—Boiling waste vulcanized rubber in water, after it has been reduced to a finely divided state by grinding, for the purpose of utilizing the same, by restoring it to a plastic state, fit to be again used in the manufacture of India rubber fabrics, as set forth.



No. 20,678.—FRANCIS BASCHNAGEL, of Beverly, Massachusetts, assignor to THE BEVERLY RUBBER COMPANY.—*Improvement in Restoring Waste Vulcanized Rubber*.—Patent dated June 22, 1858.—The claim will explain the nature of this improvement.

*Claim*.—The application of heat from 150° to 600° Fah to waste vulcanized rubber, with or without immersing it in cold water or any other cooling fluid, as specified, for the purpose of restoring the same, so that it may be used again in the manufacture of India rubber goods and substances, hereby expressly disclaiming all and every right to the application of artificial heat to new rubber vulcanized or not vulcanized, and to the application of heat to rubber, in any manner and for any purpose except as above set forth.

No. 22,217.—HIRAM L. HALL, of Beverly, Massachusetts, assignor to THE BEVERLY RUBBER COMPANY.—*Improvement in Restoring Waste Vulcanized Rubber*.—Patent dated November 30, 1858.—The claim explains the nature of this invention.

*Claim*.—The method of restoring waste vulcanized rubber by grinding it to a fine or powdered state, or otherwise, then submitting the same in a close or proper vessel to the action of steam direct upon the rubber, or in connexion with water, for the space of forty-eight hours, more or less.

No. 20,242.—HIRAM L. HALL, of Beverly, Massachusetts, assignor to THE BEVERLY RUBBER COMPANY.—*Improvement in Utilizing Waste Vulcanized Rubber*.—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim.

The inventor says: I do not claim the mixing of asphalt, coal tar, resin or shellac, or other similar substance with native rubber, nor with vulcanized rubber previously dissolved by means of essential oils or other solvents.

But I *claim* the restoring of waste vulcanized rubber by grinding it and mixing it with asphalt, coal tar, resin, pitch, shellac or other similar substances, so that it can be used again in the manufacture of vulcanized rubber fabrics, and be as serviceable, or nearly so, as when the fabrics are made with the use of the native rubber.

No. 22,038.—RICHARD SOLIS, of New Brunswick, New Jersey.—*Improvement in Machinery for Manufacturing Shirred Goods*.—Patent dated November 9, 1858.—This invention relates more particularly to improvements in machinery for making that kind of elastic fabric known as shirred goods, in which threads or strips of india rubber in a distended state, are inclosed between two lamina of cloth, coated with india rubber or other cement, and cemented to the elastic threads or strips, and to each other between the said threads or strips.

The inventor says: I *claim*, in combination with the rollers or equivalent means for cementing the two lamina of cloth, and the rollers or equivalent means for keeping the united lamina distended, and for moving them as described, the employment of a bar, or the equivalent thereof, over which the united lamina are drawn to form the turned or lapped selvages, as described.

And I also claim, in combination with the selvage bar, or its equiv-



alent, and the means described for moving and keeping the lamina distended, or equivalents therefor, the employment of pins for turning the edges in forming the turned or lapped selvages, as described.

No. 22,330.—WILLIAM H. MANNING, of Owego, New York, assignor to Himself and LUCIUS H. OLMSTED, of said Owego.—*Improvement in Machines for Cutting Soap*.—Patent dated December 14, 1858.—The claim and engraving explain the nature of this invention.

*Claim*.—The machine described for converting block and slab soap into bars and cakes consisting substantially of the frame or series of cutters, the guiding and supporting bars, and the presser or follower.

No. 19,754.—DALRUMPLE CRAWFORD, of Toronto, Canada.—*Improvement in Manufacture of Soap*.—Patent dated March 30, 1858. The claim will explain the nature of the composition.

The inventor says: I do not claim mixing flour, corn meal, starch, or vegetable matter generally with soap.

I do not claim making soap with a fat or oil and an alkali, with or without rosin.

But I *claim* mixing with soap the refuse from indian corn after it has been subjected to the action of alkali in extracting the starch, as substantially set forth.

No. 19,667.—CAMPBELL MORFIT, of Baltimore, Maryland.—*Improved Process of Making Soap*.—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim.

*Claim*.—The saponification of red oil, or red acid oil and fat acids generally, by means of powdered or dry carbonates of soda, as kelp, troma, sal-soda, soda ash, bi-carbonate of soda, &c., and converting them into toilet and laundry soaps, in the manner substantially as set forth in the specification.

No. 19,960.—C. D. VAN ALLEN and SAMUEL AVERY, of Baldwinsville, N. Y.—*Improvement in Soda Fountains*.—Patent dated April 13, 1858.—The inventor says: In order to make soda-water we put a solution of supercarbonate of soda in one of the reservoirs J, and tartaric acid in solution in the other. We then cause the piston B of the pump to rise, which draws both of the solutions into the pump chamber P. On depressing the piston rod B, the solutions are prevented by the valve M from returning to the reservoirs J J, and are forced through the pipe O and E into the fountain or generator F, and prevented from returning to the pump by the valve N.

*Claim*.—The apparatus described—that is to say, the combination of the reservoirs J J, (the one an acid, the other an alkali, in separated solutions,) pipes K K, valve M, pump chamber P, elastic cover C, aperture O, valve N, valve cap D, pipe E, and generator F, when these several parts are constructed and relatively arranged with respect to each other, as set forth for the purpose specified.

No. 20,382.—E. D. WHEELER, of Murfreesboro, Tennessee.—*Improvement in Portable Soda-Water Apparatus*.—Patent dated May 25, 1858.—The object of this invention is so to charge the generator



with the substances producing the carbonic acid gas that the gas shall be slowly and progressively evolved, and to be passed into the fount gradually in combination with a peculiar construction of apparatus, whereby a purifier is dispensed with.

*Claim.*—Inclosing the charge in a long fibrous case or bag A, when said case or bag is used in combination with a soda-water apparatus, constructed and operating as described.

No. 22,460.—SAMUEL T. STRATTON, of Philadelphia, Pa.—*Improvement in Manufacture of Starch.*—Patent dated December 28, 1858.—This invention consists in steeping corn or other material, whole or crushed, in an alkaline or caustic alkaline liquor, at the strength of one or more degrees alkaline hydrometer, and at a temperature of from seventy to one hundred and thirty degrees Fahrenheit.

*Claim.*—Steeping the material from which starch is extracted (either whole or crushed) in an alkaline or caustic alkaline liquor, of a suitable strength, and artificially heated to a temperature of from seventy to a hundred and thirty degrees Fahrenheit thermometer, as specified.

No. 20,966.—J. VON SCHWARZ, of Nuremberg, Bavaria.—*Improvement in Manufacture of Steatite Articles.*—Patent dated July 20, 1858.—The claim will explain the nature of this invention.

*Claim.*—Preparing gas burners or other articles of manufacture from the natural substance known as steatite, in such a manner as to give said articles an intense degree of hardness, and also a capacity to resist high temperature, substantially as set forth.

No. 22,126.—LOUIS LEFEBORE, of New Orleans, Louisiana.—*Improvement in Furnaces for Evaporating Sugar Juices.*—Patent dated November 23, 1858.—The claim and engraving explain the nature of this invention.

*Claim.*—In combination with the fluted outer surface of the kettle forming the masonry constituting the opposite face of the flue, with corresponding fluting or corrugations, so as to surround the kettle with an undulating passage for the products of combustion, substantially as and for the purposes set forth.

No. 22,307.—F. ROY, of Parish of St. Bernard, Louisiana.—*Improvement in Furnaces for Evaporating Sugar Juices.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim broadly and of itself the open setting of kettles.

But I do *claim* the setting of sugar kettles with the system of radial braces *i i*, so situated as to divide the space around the kettle into two apartments, communicating by the openings *o*, when these upper chambers communicate with each other and by flues X, with a common flue *g*, the whole operating substantially as and for the purpose set forth.



No. 19,515.—HONORÉ ROTH, of Iberville Parish, Louisiana.—*Improvement in the Method of Setting Sugar Kettles*.—Patent dated March 2, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—Setting the kettles known as the “battery” and “flambeau” over separate furnaces, in communication respectively with the kettles denominated the “syrup” and “propee,” and both communicating with the “grande,” or first kettle of the series on opposite sides of a division wall reaching nearly to the bottom of said kettle, substantially as and for the purpose set forth.

No. 21,786.—J. C. TUCKER and L. LANZWEERT, of San Francisco, California.—*Improvement in the Manufacture of Sugar*.—Patent dated October 12, 1858.—The nature of this invention consists in clarifying with the hydrate of alumina in that particular state of precipitation, which state alone yields to animal coal its special properties, and which differs in effects from the precipitates obtained in the usual known manner.

The inventors say: We do not claim the hydrate of alumina as usually found in the trade, in nature, as claimed to be prepared dry by the Messrs. Oxyland, or precipitated by ammonia.

But we *claim* the process of decolorizing and defecating saccharine liquid and vegetable juices, and application in the manner described of hydrated alumina, cream of alumina, prepared as set forth.

No. 20,347.—THEODORE A. HOFFMANN, of Beardstown, Illinois.—*Improvements in the manufacture of Dextrin and Sugar*.—Patent dated May 25, 1858.—The claim explains the nature of this invention.

The inventor says: I disclaim the separate action of steam and acids for converting starch, corn, or other grain into dextrin, or sugar, and alcohol therefrom by the usual boiling point of one atmospherical pressure.

But I *claim* the combination of steam and acids for converting starch, corn, or other cereals into dextrin gum, or sugar, when said grain is subjected to the action of diluted acids, and the temperature of the mass is elevated to 225° or 300° Fahrenheit.

No. 19,743.—C. E. BERTRAND, of Williamsburg, N. Y.—*Improvement in Sugar Mould Carriages*.—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The sugar mould carriage constructed and arranged to operate substantially in the manner described, that is to say, the platform in combination with stationary pins, supported by two wheels and a caster, the standard of which bears against and pivots in the upper or brace plate, the latter being composed of semi-circular arms, holding, in connexion with guard chains or bars, the conical moulds, in the manner and for the purposes set forth.

No. 20,655.—ALFRED MONNIER, of Camden, N. J.—*Improvement in treatment of Metallic Sulphurets*.—Patent dated June 22, 1858.—The substance mentioned in the claim is composed as follows: Pul-



verize the native sulphuret or arsenic-sulphuret of iron, and mix it thoroughly with 33 to 75 per cent. of its weight of either caustic soda, carbonate of soda, sulphuret of sodium, sulphate of soda, or with corresponding compounds of potash, sulphate of iron, sulphate of baryta, sulphate of strontia or zinc. To this compound water is added to keep it moist, and kept moist eight or ten days, when it is moulded into blocks; these blocks must be heated before use to expel the water.

*Claim.*—The process of obtaining oxides of iron, copper, cobalt, nickel, zinc, or other oxides, from their native sulphurets, or arsenic-sulphurets, by mixing them in a state of powder with the substance as described, in order to expel all or nearly all the sulphur and arsenic.

No. 19,991.—ISAAC GATTMAN, of Philadelphia, Pa.—*Improvement in treatment of Sulphuretted Ores.*—Patent dated April 20, 1858.—The claim explains the nature of this invention.

The inventor says: I am aware that caustic carbonate, and sulphate of potash or soda, have been used before in the working of the native metallic sulphurets, and I therefore do not claim their use as such exclusively.

But I *claim* the use of sulphuric acid in connexion with the hydrate, carbonate, or sulphate of potash or soda, or with any compound thereof, in the mode of working the native metallic sulphurets, substantially in the manner set forth and for the purpose specified.

No. 19,729.—DAMON R. AVERILL, of Pulaski, N. Y., assignor to JAMES F. DAVIS, of said Pulaski.—*Improvement in Composition for Varnishes.*—Patent dated March 23, 1858.—The claim will explain the nature of the composition.

*Claim.*—The described composition of matter, consisting of water and acetate of lead, with spirits of turpentine and coal tar, for the purpose of making a cheap, quickly-drying, and superior varnish, substantially as set forth.

No. 21,284.—JOHN TRAGESER, of New York, N. Y.—*Improvement in Apparatus attached to Steam Coils in Vats.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—Providing ratchets *l l* on the peripheries of the couplings and palls *j j* attached to the stationary supply and escape pipes *a b* to prevent the working loose of the coupled joints by the swinging of the coil.

No. 19,771.—HENRY HANNEN, of Dubuque, Iowa.—*Improvement in Apparatus for Manufacturing White-Lead.*—Patent dated March 30, 1858.—The nature of this invention will be understood from the claim and engravings.

*Claim.*—The pipe *G*, with its branch pipes *J* and stop cocks *n*, the pipes *C* and *E*, and the diffusing pipes *B* and *a*, and their respective stop cocks *e* and *e*<sup>1</sup>, in combination with the valves or stoppers *g* and *l*, the whole being arranged and operated in the manner substantially



as described, for the purpose of exposing the metal to the action of the different agents employed, alternately and successively.

No. 20,731.—ROBERT ROWLAND, of New York, N. Y.—*Improvement in Apparatus for Manufacturing White-Lead*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The combined manufacture of vinegar and white-lead, and for the purpose of carrying on both simultaneously and without injury to the one or the other, namely, fitting the tops of vinegar vats D (when said vats are placed in a room below the corroding room) to the floor C of the corroding room, substantially as above described, in combination with covers E, provided with openings *a* and valves *d*, or any equivalent means for regulating the supply of acid, or altogether closing up the communication between the interior of the vats and the corroding room whenever necessary, all substantially as described and represented in the drawings.

No. 22,036.—BENJAMIN F. SMITH, of New York, N. Y.—*Improvement in Manufacture of White-Lead*.—Patent dated November 9, 1858.—This improvement has for its object the preparing of a better form for the action of the acids on the metallic lead, and at the same time to simplify and expedite the process. The claim and engraving will give the reader an idea of the nature of this invention.

The inventor says: I *claim* preparing the metallic lead for the purposes of perfect corrosion, by exposure to the action of acids or other substances, in “spangles” of the size and configuration substantially as described.

I also claim preparing the metallic lead for the purposes of perfect corrosion by exposure to the action of acids or other substances, by causing melted lead to drop in a finely divided stream or streams upon a corrugated cylinder, or its equivalent, revolving or moving so as to throw off solid “spangles” of more or less the form and thickness described.

No. 21,915.—JOHN WILKINS, of Troy, New York.—*Improvement in Apparatus for Cooling Worts*.—Patent dated October 23, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: What I *claim* is the cooling apparatus as described, with their metallic operating plate placed horizontally and fastened so as to be easily removed for the purpose of cleaning, together with the specific arrangement of ribs and joists, or their equivalents, operating as and for the purposes set forth.

Second. I claim the distributing and collecting troughs, with their respective ice water and waste water troughs at the ends of the operating plate.

Third. I claim the combination of the said parts, namely, the operating plate with its joists, ribs, modes of fastening, troughs at each end, and regulating valves as described, or of parts substantially the same, when they are employed as a cooling apparatus in the manner set forth.



## V.—CALORIFICS.

No. 20,304.—WILLARD G. RUGGLES, of Worcester, Mass.—*Improved apparatus for Baking and Cooking*.—Patent dated May 18, 1858.—Box A<sup>1</sup> is constructed of either cast or sheet metal, from half inch to two inches deep, or more according to the size of the oven to which it is to be applied, and about as wide and long as the oven that is to receive it. This box, or flue A A<sup>1</sup> is to be furnished with partitions D, which may be varied in making the flue as may be found best calculated to spread the heated current to every part of the flue; in one side of the oven are formed openings E, furnished with slides or gates C to close them; these openings agree with the openings F left in the sides of the flues. G represents the opening between the top of the stove and top of the oven where the heated air &c., from enters.

*Claim*.—I claim the arrangement of the flue or flues with the slides and openings, when constructed as described.

No. 19,636.—JOSEPH HOLLELY, of New York, N. Y.—*Improvement in Blow Pipes*.—Patent dated March 16, 1858.—The boiler or generator B is placed on the frame A, so as to admit the application of a lamp C beneath it, for the purpose of heating the liquid therein, in order to produce the steam. On another part of the stand another lamp D is so situated as to receive the jets of steam through its flame to create the necessary heat. To insure safety and the desired variation of pressure, a safety valve E, is required to be attached to the boiler.

The inventor says: I disclaim all arrangements of blow pipes substantially different from that above described.

But I *claim* a blow pipe provided with a faucet, I, spigot, L, and jet pipes M N, constructed and arranged as described, in connexion with safety valve E, arranged and operating in the manner set forth for the purposes specified.

No. 20,546.—C. S. BUCHANAN, of Ballston, N. Y.—*Improvement in the mode of Heating Rotary Boilers*.—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* combining and surrounding a cylindrical boiler made to revolve upon its axis, with one or more stationary envelopes, made of fire brick, or any other equivalent material, arranged at such distance from said boiler, as to allow the fire and other products of combustion to pass around the boiler, in the manner and for the purposes specified.

I also claim arranging the stationary envelopes around a rotary boiler, in such a manner as to leave both the ends and the middle of the said boiler uncovered, for the respective purposes of protecting the journals at the ends of the boiler from heating, and of allowing access to the man-hole as specified.

Also in combination with a boiler constructed and operating in the manner described, I claim two furnaces arranged as described symmetrically in relation to the boiler, whereby the heating of said boiler can be effected in a more economical and uniform manner.

No. 21,085.—WILLIAM RESOR, of Cincinnati, Ohio.—*Combined Broiling Furnace and Cooking Stoves*.—Patent dated August 3, 1858. The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the described arrangement of the grates A and B, passages, C F G, and damper c, or their equivalents, operating as set forth, to temporarily connect the charcoal grate with the main fire so as to ignite its contents and afterwards disconnect them so as to burn independently.

No. 21,297.—H. W. HARKNESS, and WILLIAM A. FERRY, of Bristol, Connecticut, assignors to Themselves and JOSEPH SIGOURNEY, of said Bristol.—*Improved Apparatus for Broiling, Toasting, &c.*—Patent dated August 24, 1858.—The nature of this invention consists in constructing a rotary support to hold meat, bread, &c., operated by mechanical movements, so as to continually revolve or change the surface before the fire.

*Claim.*—The above described broiling and toasting apparatus, consisting of case C, clock movements D, arms B, spindle A, and pins c, arranged and operating substantially in the manner and for the purpose set forth.

No. 20,305.—CHARLES W. SMITH, of Evans, New York.—*Improved Devices for Regulating by Electricity the Issue of Gas from Burners*.—Patent dated May 18, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I wish it to be understood that I do not claim the use of the attraction and repulsion of temporary and permanent magnets, to obtain an increased force for actuating the supply cock.

Neither do I claim the use of a pawl or ratchet, or their equivalents, for the purpose of controlling the supply of gas, and consequently the size of the flame.

But I *claim* the combination and use of a permanent and temporary magnet, or of two temporary magnets, one fixed and one vibrating, with a pawl and ratchet, situated substantially as described upon the supply cock of a gas burner, or series of burners.

I claim also the use of a thin slip of metal, or its equivalent, to deflect a portion of the jet of gas upon an ignited platina coil, situated entirely without the jet, as described.

No. 21,893.—ALONZO M. MACE, of Springfield, Massachusetts.—*Improved Hydro Carbon Vapor Burner*.—Patent dated October 26, 1858.—The nature of this invention consists in providing siphon-shaped vaporizing tubes, with a chamber connected and communicating with the upper part of the tube and over the flame of a burner, the heat of which produces the evaporation.

*Claim.*—The use of the chamber A connected with vaporizing tubes



at the crown or upper part over the flame, the same being constructed substantially in the manner and for the purpose set forth.

No. 20,558.—LEVI L. HILL, of Greenport, New York.—*Improvement in Manufacture of Burning Fluids*.—Patent dated June 15, 1858 — A full description of the compounds would require too much space to be given here.

The inventor says: I do not claim the mere mixture of tar and crude turpentine, nor the above method of making caoutchoucine, nor any peculiarity in the form of my apparatus.

Neither do I claim the use of benzole or naphtha for carbonizing air or gas, for benzole alone, and benzole mixed with alcohol has been used for air, and naphtha for gas.

But I *claim* first, the use of caoutchoucine for imparting greater volatility, as well as greater stability, to my compounds.

I wish to be distinctly understood as claiming the use of caoutchoucine only in combination with the liquids described.

Second, I claim the liquids described as newbian oils, A B C D, having the composition and properties set forth, to be used singly or in such relative proportions and admixtures as may appear necessary to accomplish the purposes set forth.

No. 21,987.—SAMUEL SLOCOMB, of Cambridge, Massachusetts.—*Improvement in Candlesticks, &c.*—Patent dated November 2, 1858.—From the socket A descends a metal rod D which passes through the shank and into the base, being secured into the latter by a washer *f* and nut *g*.

*Claim* —As a new article of manufacture, a lamp stand having a metal socket, a glass shank, and a marble base, the whole being secured together by the rod D, as set forth.

No. 21,884.—BERNHARD KIHHLHOLZ, of St. Louis, Missouri.—*Improvement in Chimney Caps*.—Patent dated October 26, 1858.—The inventor says: This machine prevents the wind from blowing the smoke back into chimneys and rooms. The cylinder shelters the cap and flange, and smoke-pipe is again sheltered by the cap above and by the flange below, so that the wind will pass the so protected smoke-pipe without being able to penetrate into the interior and drive the chimney. The cap being smaller than the flange, the wind will on the contrary promote the discharge of the smoke.

*Claim*.—The above described chimney smoke-regulator, consisting of the pipe F, deflector E, and cap D enclosed in cylinder C attached to cover A, the whole constructed and arranged substantially as and for the purposes set forth.

No. 22,112.—CHARLES DOUGLAS, of Cleveland, Ohio.—*Improvement in Chimney Caps*.—Patent dated November 23, 1858.—A A A B is a frame of sheet iron, in the base of which there is an opening W, equal in size to the flue of the chimney on which it is to be placed. *c c* are valves hung on pivots *a*, at each end. D is a cap suspended on pivots *b*, attached to each end of which there is a hanger *d*. The



tops of the valves *c c* are linked to the hangers *d* with wires *e e*, in such a manner that when the valves move to the right or left the cap *D* is caused to rock over to the right or left.

*Claim.*—The frame *A A A B*, the valves *C C*, and the plan of linking the valves and cap together to give them their proper relative positions; all substantially as described, and for the purposes set forth.

No. 21,115.—FREDERICK M. BUTLER, of New York, N. Y.—*Improved Wind Guard for Chimneys.*—Patent dated August 10, 1858.—This invention consists in the combination of a peculiar hood *f* with radial guards *d*, and an inner dish *e*, with or without a flange around the flue *a*, to be ventilated in such a manner that there is always more space for the escape of gases than there is for the ingress of wind or currents of air, no matter in what direction said air may strike the guard or cap.

The inventor says: I do not limit myself to the size or shape of my wind guard, whether round or polygonal, although I prefer the former or an oval.

What I *claim* is, the arrangement of the pipe *b*, radial guard *d*, inner disk *e*, and hood *f*, when in substantially the proportions and for the purposes specified.

No. 20, 662.—LEVI H. PROCTOR, of East Saugus, Mass.—*Improved Apparatus for Sifting Coal Ashes, &c.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the application of the sieve *C* to its vibrating frame, in manner so as to enable such sieve to be tilted or turned over laterally so as to discharge out of it such contents or matters as may not be small enough to pass through its meshes.

But I *claim* the arrangement of the inclined partition or chute *R*, and the two discharging openings *K L*, with respect to the sieve *C*, made capable of being revolved in manner substantially as set forth.

I also claim in combination with the discharging passages *K L*, arranged so as to lead out of the sieve chamber as described, a flap or valve *M*, so combined or connected with the turning sieve *C* as to operate with respect to the two discharging passages *K L*, substantially as described during the rotary or tilting movements of the sieve.

No. 19,481.—AQUILA BOLTON, of Port Carbon, Pa.—*Improvement in Machines for Breaking Coal.*—Patent dated March 2, 1858.—This invention consists in breaking coal and discharging it as fast as broken, by means of the combined action of a shaft or roller *B*, armed with teeth or cutters *d d*, and revolving in one direction, and a perforated hollow conical cylinder *C*, furnished with vertical slotted ribs or partitions *e e e e*, and revolving in an opposite direction to that of the shaft or roller *B*. This arrangement avoids grinding or crushing the coal as in other machines which have one breaking surface stationary and the other moving.

*Claim.*—The arrangement shown consisting of the perforated, internally ribbed or toothed conical chamber *C e*, *C<sup>1</sup> e<sup>1</sup>*, revolving in one



direction, and the toothed shaft or roller B *d*, revolving in an opposite direction, for the purpose of breaking coal, as specified.

No. 19,429.—JOHN H. LYON, of Baltimore, Md.—*Improvement in Machines for Splitting Coal*—Patent dated February 23, 1858—The manner of operating this machine is as follows: Power is applied to the shaft B, and communicated to the operative parts by means of the lever C, which meshes into bevelled gearing on cam D. This cam is loose on rod F, and revolves upon it. As it revolves it forces cam E to rise when cam E falls, and with it rod F and pick stock G, giving the required blow. The coal to be broken is fed on to the endless belt K, and supported above its surface by the spikes H<sup>2</sup>.

*Claim.*—The arrangement for joint operation, in the manner and for the purposes described, of the spiked endless belt K, and the picks H H<sup>1</sup>, driven by percussion, substantially as specified.

No. 21,559.—JOSEPH P. EVANS, of Borough of Hazleton, Pennsylvania.—*Improvement in Machines for Washing Coal*.—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: First. I *claim* forming a series of slits D<sup>1</sup>, at the lower end of the corrugations C<sup>2</sup>, next to the triangular openings C<sup>3</sup>, so as to enable the thin pieces of slate to discharge themselves automatically through them, substantially as described.

Second. I claim the combination and arrangement of a tappet or tappets E<sup>1</sup> with and in the relation to the corrugated bottom C<sup>2</sup> of the chutes C and the slits D<sup>1</sup>, and triangular openings C<sup>3</sup>, at the lower ends of the same, over which they are suspended, as set forth; the said tappet or tappets being provided with adjustable weights G to regulate their resistance to the coal, substantially in the manner and for the purpose before described.

Third. I claim the arrangement of the upright pipe N and right angled perforated pipe P, at its lower end, in relation to the corrugated bottoms of the chutes described; said perforations being formed on the lower portion of its periphery, as stated, for subjecting the coal to a thorough washing in its descent, as set forth.

No. 19,175.—GEORGE E. HOYT and FREDERICK NESHWITZ, of Brooklyn, New York, assignors to GEORGE E. HOYT aforesaid.—*Improvement in Coal Screens*.—Patent dated January 19, 1858.—The coal to be screened and separated by this invention is placed upon the upper screen C and a vibratory motion, lateral or otherwise, imparted to the box A.

The upper screen C contains the lump coal, which is conveyed by its spout G into a proper receptacle, while the smaller coal and dust pass through the screen C and fall upon the screen D and dust screen *b*, a portion of the dust and fine matter passing through the dust screen to the ground.

The screen D retains and delivers the next size to "lump," known as the "egg" coal. The next screen contains the "nut," and its



successor the "chestnut" size, while the lowest fire screen contains the "pea" size.

The inventors say : We do not claim any form of rotating coal screen, neither do we claim any arrangement which requires the dust to pass through a succession of screens before being finally separated from the coal.

But we *claim* preventing the dust and dirt which have been once separated from the coal from again mingling with it by means of the arrangement before described of the inclined screens C D E F, in combination with the dust sieves *b* ; the whole constructed, arranged, and operating substantially in the manner set forth, and applied to the purposes specified.

No. 20,000.—ARCHIBALD McNEILL, of Washington, D. C.—*Improved Combined Coal Scuttle and Ash Sifter*.—Patent dated April 20, 1858.—This invention consists in so constructing a coal scuttle that it can be converted into and used as a sifter of coal cinders and an ash pan.

The inventor says : I do not claim any of the parts described, separately.

But I *claim* a coal scuttle A provided with the extended scoop-shaped piece D, slide C, screen E, and cover G, all arranged and operating substantially and for the purpose as set forth and described.

No. 19,768.—T. GARRETSON, of Pottsville, Pennsylvania.—*Improvement in Machines for Slating Coal*.—Patent dated March 30, 1858.—This improvement consists in a certain construction of the sides of a rotary screen, and of the openings in these sides, which encourages and permits the escape through these openings of pieces of thin flat form, like the pieces of slate in broken coal.

*Claim*.—The construction of the sides of the screen and the openings *a a* therein, substantially as described, to bring the said openings outside of the guard bars B B, and give to the said openings a tangential direction, and to form tangential, or nearly tangential, conductors C C, leading to the said openings, as set forth.

No. 19,249.—JAMES HOWE and CHARLES W. COPELAND, of Brooklyn, New York.—*Improvement in Damper Regulators*.—Patent dated February 2, 1858.—The inventors say : We are aware of the facts that elastic diaphragms, properly connected, have been used as dampers for regulators ; that an elastic metallic vessel, of peculiar formation, has been employed for the same purpose ; and also that a bent, highly elastic metallic tube has been and now is used as a steam-gauge, but in that instance the pressure does not alter the cross-section of the tube, but the degree of curvature in the length of the tube. And we also know that it has been proposed to employ a coil of tube as a gasket for a stuffing-box packing, such a tube being distended by fluid pressure. We therefore lay no claim to any such contrivances.

But we *claim* a flexible or flexible and elastic tube, closed at both ends, and in connexion with a steam generator, in combination with a presser-block and a bed-plate, constructed as a whole, substantially



in the manner specified, and applied to regulate the quantity of air delivered to a furnace, or as a pressure-indicator.

No. 22,144.—CHARLES A. HASKINS and GEORGE MACARDLE, of New York, N. Y., assignors to JOSHUA A. FRENCH and ELIZA C. TYRRELL, of Jersey City, New Jersey.—*Improvement in Grain and Fruit Dryers*.—Patent dated November 23, 1858.—The nature of this invention consists in the travelling-pipes, with adjustable connecting drums, through which the hot air is compressed and distributed over and through the grain or other substances; also the carriage and seats upon which the adjustable drums are supported, raised, and carried.

*Claim*.—The travelling-pipes and adjustable drums, and the form of the drums, through which the hot air is compressed and distributed over and through the material to be dried. Also, the carriage and seats upon which the drums are adjusted, supported, raised, and carried, in combination with the pipe-journal H, gear-wheel O, and chamber G, substantially as described.

No. 19,358.—JACOB A. FOLTS, of Buffalo, New York.—*Improved Fire-Box and Grate*.—Patent dated February 16, 1858.—In *figures 1 and 2*, A represents a cylinder with open ends, with a flange *a* turned on its inner perimeter at both ends of the cylinder; B are supports upon which the journals *b b* of an elliptical-shaped fire-box C rest and turn; the crank D is connected to one of the journals for this purpose; *d d*, &c., are the grate-bars, which are of a curved form, so that the flanges *c c* on the fire-box shall turn in close proximity to it.

The inventor says: I am aware that cylinders with grates attached to their ends, and revolving basket-grates, have been used. These I do not claim.

But I *claim* a revolving or turning fire-box, which is open at its opposite sides or ends, when used in combination with a fixed grate, substantially in the manner described and represented.

No. 22,162.—LYSANDER BUTTON and ROBERT BLAKE, of Waterford, New York.—*Improvement in Fire-Engines*.—Patent dated November 30, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: What we *claim* as our improvements in fire-engines is placing the cylinders diagonally to the line of the rock-shaft, substantially in the manner and for the purposes set forth.

We do not claim contracting the air vessel at its base, or its point of attachment to the water-ways or channels of fire-engines.

But we do claim combining with horizontal water-way or channel *i* the air-channel *d*, divided into two compartments by the contraction *r*, at or about one-half the height of said air-chamber, above its base or point of attachment to said water-way, substantially in the manner and for the purposes set forth.

We claim, in combination with the hour-glass contraction of the air-chamber, the ring enlargement *s* of the rock-shaft, as set forth.

No. 20,867.—JOHN N. DENNISON, of Newark, New Jersey.—*Improvement in Force-Pumps for Fire-Engines*.—Patent dated July 13, 1858.—The nature of this invention consists in giving greater efficiency to the engine by increasing its capacity near the end of the stroke of the arms.

A is the pump-cylinder; B the main piston; C is an additional ring-piston, operating in the enlarged end of cylinder A; *e e e e* are spiral springs under the piston C; *f* is the bed-plate; *g* the valve; *h* a post; and *o* an air-barrel.

*Claim*.—Increasing the capacity of the pumps of fire-engines near the end of the stroke, by the expedients described, or their equivalents.

No. 20,875.—JOSEPH H. GRIMSLEY, of New Lexington, Ohio.—*Improvement in Fire Escape Ladders*.—Patent dated July 13, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim* the wheels turning on the axles at the ends of the wings or steps, for the purpose set forth, of providing a space between the ladder and wall for the feet and hands of the individual when descending to enable and aid the ladder to reach the ground, said wheels being placed at the axle at the ends of the rungs, especially for this important purpose and object, viz: that with the wheels so placed it is of no consequence or difference which side of the ladder is uppermost when thrown out, making no difference which side of the same rests against the wall.

Also the straps which, placed substantially as set forth, combined with a ladder of the necessary strength and weight, as small, enables a person of ordinary strength to rescue the aged, infirm, young, and those too timid to descend alone, by lowering them to the ground by the hand.

No. 22,324.—JOHN WITHERS, of Collinsville, Ill.—*Fire Escape Ladder*.—Patent dated December 14, 1858.—The nature of this invention consists in combining a fire “shoot” with a pair of folding ladders, and a yielding bed or bottom, and in mounting the said combination upon a pair of wheels whereby the said machine may be transported, and also in so arranging the said ladders that they may be unfolded and placed against the side of a burning building for the escape of the inhabitants.

The inventor says: I *claim*, first, the combination of the canvas bag or shoot K with the ladder A, in the manner described, for the purpose specified.

Second. The combination of a bed J and its frame, as shown and described, arranged to open and close, as set forth.

Third. The arrangement of the two ladders A and B with each other in the manner set forth, and also the means of adjusting the ladder B, substantially in the manner described.

No. 21,094.—WILLIAM R. WARDEN, of Boston, Mass.—*Improvement in Fire Places*.—Patent dated August 3, 1858.—The nature of this invention consists in inserting and securing in fire places a metallic



frame D, within which is placed a vertical plate F, perforated for the reception of the stove pipe, and capable of being raised and lowered to accommodate the opening to the stove pipe in such a manner as to form an ornamental front, which shall entirely close the fire place and be capable of easy attachment and detachment.

*Claim.*—The combination and arrangement of the ornamental metallic frame D and vertical slide F, containing smoke pipe opening within the fire-place, in the manner and for the purpose described.

No. 22,410.—WILLIAM A. BRADLEY and JACOB BIGELOW, of Washington, D. C.—*Improvement in Manufacture of Artificial Fuel.*—Patent dated December 28, 1858.—The nature of this invention consists in pulverizing the crude coal as it comes from the mines and mixing it with certain substances named in the specification, and then compressing it into blocks for use as fuel.

When the coal is so pulverized by any suitable powerful machine, it is placed in vats or pans of fire-proof material and heated to a sufficient degree, when it is mixed with certain inflammable material, which is varied according to the character of the coal used.

*Claim.*—The manufacture of artificial coal made from refuse bituminous coal, anthracite or charcoal, as set forth, combines with the substances described, the whole made in the manner and for the purposes set forth.

No. 19,942.—JAMES McCracken, of Bloomfield, N. J.—*Improvement in Furnaces.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the employment of hollow grate-bars for the passage of air through them, as such have before been known and used.

Nor do I claim supplying air to the gaseous products of combustion, for the combustion of the inflammable gases evolved from the fuel.

Nor do I claim the heating of the air to be supplied to the inflammable gases.

Nor, finally, do I claim the use of a shield plate to protect the bottom of the boiler and prevent it from being overheated, as all those have long been known.

But I *claim* the employment of hollow grate-bars in combination with a closed ash pit, in the manner substantially as herein described, so that the air which passes through the said grate-bars shall be discharged into the ash-pit and thence pass up between the said grate-bars to supply the blast or draught to the fire on the grate-bars as set forth.

I also claim the use of tubular bearers for supplying heated air to the inflammable gases at or near the fire bridge, substantially as described, in connexion with a shield plate, substantially as described, and interposed between the fire and boiler or other body to be heated, constructed and arranged as specified, to maintain the inflammable gases at a high temperature until after they are supplied with heated air for their ignition as described.



No. 20,836.—B. H. WASHINGTON, of Hannibal, Missouri.—*Improvement in Furnaces*.—Patent dated July 6, 1858.—This invention consists in using, in connexion with the two cones E E, what may be termed air conductors F F, placed within the furnace below the grate B, and so arranged as to diffuse the air equally over the surface of the grate, causing a more perfect combustion of the fuel with a milder flame than usual.

The inventor says: I do not claim the cones or funnels E E, for they have been previously used, and were formerly patented by me.

But I *claim* the air conductors F F placed below the grate bars B, constructed as shown, and used in connexion with the cones or funnels E E, substantially as and for the purpose set forth.

No. 19,781.—T. DWIGHT INGERSOLL, of Monroe, Michigan.—*Improvement in Air-Heating Furnaces*.—Patent dated March 30, 1858.—This invention consists in arranging the radiators B and dampers H I of a furnace in such a way that the dampers may be made to perform the double function of dampers and scrapers and the radiators thereby kept clean.

*Claim*.—Constructing the radiator B, and arranging the dampers H I within it, substantially as shown, so that the dampers may perform the double function of dampers and scrapers, as set forth.

No. 20,640.—JOHN P. HAYES, of Philadelphia, Pennsylvania.—*Improvement in Air-Heating Furnaces*.—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: First, I *claim* admitting hot air to the upper surface of the fire for the combustion of the gases arising therefrom, by making the fire tiles or lining of the fire chamber in numerous vertical sections, with the depressions *u y* in the adjoining sides of the same, so that when the said sections are placed together side by side in the fire chamber air spaces or flues *u y* will be produced between, so as to heat and discharge currents of air into the upper part of the fire chamber in the manner described, the said sections being constructed and arranged together substantially as set forth.

Second, I claim making a direct communication between the said air flues *u y* and the ash pit D, by means of the openings *w w*, or their equivalents, in the foundation plate upon which they rest, substantially as described.

Third, I claim forming the top and side plates of the furnace body A so that each of its said two end and side plates *l* and *l*<sup>1</sup> may be combined with a row of pipes *m m*, opening at each of their ends, upon the same side of the plate, as described, and produce hot air flues *m m* through the body A of the furnace, when the said plates are united together at their upper edges, all substantially as and for the purposes set forth and described.

No. 22,353.—FELIX DAUNOY, of Carrollton, Louisiana.—*Improvement in Bagasse Furnaces*.—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The construction of bagasse furnaces having the exit flue



F located in the interior of the furnace with the openings K to admit the gas from combustion, when in combination with the wood or coal chamber having a skeleton crown, and the grates B on which the bagasse is consumed, when made and arranged substantially as and for the purpose set forth.

No. 22,382.—EVAN SKELLY, of Plaquemine, Louisiana.—*Improvement in Boiler Furnaces*.—Patent dated December 21, 1858.—The operation of this improved furnace is as follows: The flame and heated gaseous products of combustion escaping from the fire chamber into the flue H under the boilers, the greater portion of them are caused by the arrangement of the bridges F F and G G to have a tendency to escape in the circuitous direction indicated by the arrows, through the passages *c c*, and the different currents thus produced meeting other, cause a circulation under every part of the boiler, while the whole of the gaseous products of combustion pass steadily toward the rear end of the flue, whence they pass into the chimney.

*Claim*.—The combination and arrangement of the gradually contracted fire chamber C with the bridges F F G G, as shown and described, for the purposes set forth.

No. 20,591.—EVAN SKELLY, of Plaquemine, Louisiana.—*Improvement in Furnaces for Burning Bagasse, &c.*—Patent dated June 15, 1858.—This invention consists in a certain construction of the furnace and arrangement of air passages *c d d<sup>1</sup> e* for heating and supplying air to the fire, whereby a very perfect combustion of the small or refuse fuel is obtained with the use of a small quantity of wood.

*Claim*.—The angular internal projections *a a*, central cone *b*, and air passages *c d d<sup>1</sup> e f g*, combined and arranged substantially as described to operate as set forth.

No. 22,067.—G. B. DEPPEN and E. LEVENGOOD, of Myerstown, Pennsylvania.—*Furnace for Burning Coal Dust*.—Patent dated November 16, 1858.—The nature of this invention consists in the manner in which the several parts of the furnace are arranged and combined, so as to adapt to the successful and economical burning of coal dust.

*Claim*.—In combination with a fan-blower to promote combustion the arrangement of the fire chamber, ash box, perforated plates, combustion and exit chambers, communicating with each other, and with the air trunk leading from the fan-blower, substantially in the manner and for the purposes described.

No. 22,424.—THOMAS R. HARTELL, of Philadelphia.—*Improvement in Furnaces for Burning Lime*.—Patent dated December 28, 1858.—This invention consists in forming the bed of a reverberatory furnace of a series of fire-proof platforms, the projecting edges of which fit into recesses in the side walls, for the purpose of cutting off all communication between the cold air of the lower part of the furnace and heated air in the upper portion of the same.

*Claim*.—Providing a recess in the side walls in which a corresponding projecting edge of the fire-proof travelling platform fits, in



the manner described, for the purpose of cutting off all communication between the heated upper chamber and the cool lower chamber, at the same time presenting no obstruction to the forward movement of the truck and platform.

No. 21,724.—JOHN PLANT, of Washington, D. C., assignor to HIMSELF and GEORGE H. PLANT, of said Washington.—*Improvement in Furnaces for Heating Buildings*.—Patent dated October 5, 1858.—The inventor says: The nature of my invention consists in the manner in which I have arranged and combined the flue passages with the fire box, for the purpose of causing the heated products of combustion to commingle or pass through different portions of the flue space, and thus uniformly heat the surrounding air in the air chamber, and as incidental to this arrangement the greatly increasing of the radiating surface of the furnace.

*Claim*.—The mixing of all the heated products of combustion both below and above the fire cylinder by an arrangement of diving and ascending flues leading into common chambers, where they cross each other, and are forced to commingle substantially as described and represented.

No. 20,616.—GIDEON BANTZ, of Frederick, Maryland.—*Improvement in Furnaces for Heating Steam Boilers, &c.*—Patent dated June 22, 1858.—This invention consists, 1st. In two or more arched fire chambers, A A, with throats, *e*, of less area than their capacity. 2d. An auxiliary combustion reservoir or chamber, C, with *cima reversa* shaped bottom and side draught door. 3d. A series of reverberatory chambers, D D, with side draught doors, *h*, and passages at top for communicating with each other, and a diving or direct flue leading into the chimney or smoke stack.

*Claim*.—The arrangement of the fire chambers, A A, contracted throats, *e e*, auxiliary combustion reservoir, C, provided with a *cima reversa* bridge plate, *m n*, and door, *h*<sup>1</sup>, reverberatory chambers, D D, with doors, *h h*, and the diving or direct flue, E, substantially as and for the purposes set forth.

No. 19,277.—O. W. BAYLEY, of Boston, Mass., assignor to the BOSTON LOCOMOTIVE WORKS.—*Improvement in Furnaces for Locomotives*.—Patent dated February 2, 1858.—In describing his improvement the inventor says: I construct my boiler with a tight water space bottom, A, in the centre of which is inserted a water space cone, B, through which passes a number of tubular passages, *a*, for the admission of the draught to the fire box. That there may be circulated through the cone B, to prevent the accumulation of steam therein, and its consequent destruction, its apex is continued up to the crown sheet by means of the tube C, which is secured to the crown sheet L, and opens at the bottom into the interior of the cone, and at the top into the upper part of the boiler.

*Claim*.—The water space perforated cone, as connected with the crown sheet, and in connexion with a tight furnace bottom, operating in the manner substantially as set forth.



No. 20,926.—JOSEPH WHARTON, of Philadelphia, Pa., and NATHAN BARTLETT, of Bethlehem, Pa., assignors to JOSEPH WHARTON, of Philadelphia, aforesaid.—*Improvement in Furnaces for Manufacturing Oxide of Zinc*.—Patent dated July 13, 1858.—This invention consists in an improved arrangement and construction of furnaces for the manufacture of white oxide of zinc, for the purpose of attaining an increased economy in the process and purity in the results.

The inventor says: I *claim*, first, the construction and arrangement of the furnaces of double the usual length, without any separating end wall, and with a charging door to each extremity, in the manner and for the purposes set forth.

Second. The construction and combined arrangement of the conduit L L<sup>1</sup>, the damper or valves, *d* and *e*<sup>1</sup>, and the chimneys, *g g g*, in the manner and for the purposes substantially as set forth.

Third. The series of tweers, opening into the conduit, L L, arranged and operating as described.

No. 22,257.—WILLIAM MCFARLAND, of St. Louis, Missouri.—*Improvement in Furnace for Melting Iron*.—Patent dated December 7, 1858.—The object of this invention is to prevent the collecting of the melted metal in the bottom of the furnace, and thereby keep the furnace free and in good melting order. It consists in attaching a reservoir to the surface to extend below the level of the bottom for the purpose of receiving the metal as fast as it is melted.

*Claim*.—The combination of a reservoir, A, with a cupola furnace, B, so as to collect the metal as fast as melted, substantially as and for the purposes set forth.

No. 21,828.—PERRY G. GARDINER, of New York, N. Y.—*Improvement in Furnaces for Tempering Steel*.—Patent dated October 19, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the heating of steel for the purposes of preparation, for hardening, tempering, or annealing in a closed chamber or oven of fire-brick, or other suitable material, impervious to the flame, smoke, and gases of combustion; the smoke, flame, and gasses of combustion being distributed over the exterior surface of the floor, roof, and rear of the heating oven, by means of vertical and return or reverberatory flues between the fire chamber and chimney, as described.

Second. I claim the perforated air tube, *b*, placed at the foot of the vertical descending flues on the side of the bridge wall opposite the fire place, in combination with the fire chamber and flues, and between the fire chamber and oven, operating in the manner set forth.

No. 22,041.—JOSEPH THOMAS, of New York, N. Y.—*Improved Furnace for Tempering Steel*.—Patent dated November 9, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim* arranging a plate B in an upright furnace with a central passage *a* in such a manner and in such relation to a tank D, containing water or other suitable liquid, that a piece of steel wire or a strip of sheet-steel may be heated and hardened without



coming in immediate contact with the fire, by passing the same through the passage *a* and through the liquid contained in the tank D, the whole being arranged substantially as specified.

And I also claim arranging the two furnaces A and E and the tank D in such relation to each other that a piece of sheet wire or a strip of sheet steel may be hardened and tempered by one operation, by passing the same through the plate B in the furnace A, and through the liquid contained in the tank, and from thence between the plates F and G, which are heated by the fire in the furnace E, the whole being arranged and constructed substantially as described.

No. 20,316.—ALBERT J. ALLEN & WILLIAM S. HUDSON, of Paterson, N. J.—*Improvement in Furnace Grates*.—Patent dated May 25, 1858.—This invention consists in a certain mode of applying the bars C C of a furnace grate to provide for a limited upward and downward movement thereof, in which each bar ascends as the next one on either side of it descends, and *vice versa*, which movement serves to break up the “clinkers,” or other foreign or residuary matters that collect upon the grate and tend to choke the draught between the bars, and to cause such matters to work down between the bars into the ash pit more effectually than by any other movement of the grate, and also serves to effect the even distribution of the fuel over the grate.

*Claim*.—The combination together of the vertically moving furnace bars C, furnished with projections *l*, when arranged and operating substantially as shown and described.

No. 19,239.—GEORGE DARBY, of Augusta, Me.—*Improvement in Hot-Air Furnaces*.—Patent dated February 2, 1858.—A represents the furnace constructed with a single fire-chamber. B C is the fire-grate, D the chimney flue, and D<sup>1</sup> the damper of the same, E is the cold air pipe; it communicates by its front end, which passes through the front of the surface, with the open atmosphere, and by its rear end, which is bent up at right angles, with the draught or pipe flue D. H H are two deflecting radiating plates, connected together by vertical bolts so as to stand one above the other and leave an open space between them for the flame and heated gases to circulate through, and escape into the cold air auxiliary flue.

*Claim*.—The combination of a hollow cold air auxiliary draft flue E, two deflecting radiating plates H H, and a pivoted perforated damper D<sup>1</sup>, all arranged and operating substantially as and for the purposes set forth.

No. 19,683.—JOHN CHILD, of Elyria, Ohio.—*Improvement in Hot-Air Furnaces*.—Patent dated March 23, 1858.—The nature of this invention consists in so constructing the stove for a furnace heated by wood that boiler iron shall be sufficiently stiff for the purpose, and so dividing the large chamber around the stove into air passages and chambers as to more thoroughly heat the air and increase the current and quantity passing through the furnace.

The inventor says: I do not claim the gradual heating of air in its approach to the fire chamber of a furnace.



But I *claim* the arrangement whereby I effect the gradual heating and an active circulation of air by the arrangement of the horizontal prolonged passage A B and C D, surrounding the fire chamber and therarefying chambers E E and F, above the fire chamber, constructed and operating as set forth.

No. 20,454.—JACOB STUBER & FREDERICK FRANK, of Utica, N. Y.—*Improvement in Hot-Air Furnaces*.—Patent dated June 1, 1858.—The nature of this invention consists of separate and distinct radiators B, communicating with the air chamber G, and which radiators may be made of cast or wrought iron. Each radiator acting independent and giving out as much heat as a stove of the same capacity.

*Claim*.—The arrangement of radiators B, constructed as described, connected at the lower end with the chamber G, and by the pipes C with the perforated plate F and the cleaning box D with funnel e, all constructed and operating substantially as set forth.

No. 22,173.—JOHN R. FERGUSON, of Brooklyn, New York.—*Improvement in Hot-Air Furnaces*.—Patent dated November 30, 1858.—A is the boxing under the floor plate; B is the fire-door and boxing of same; C C is the lower part of the register pipes; c c shows the tooth-points to same; D shows the gas-tight joint; E is the partition and second division plate; f denotes the flanges; G the small cones; g the bands around the cones upon which the flanges f are put; H the smoke-chamber; h the descending smoke-pipe; h<sup>1</sup> draughter to smoke-chamber; I fire-box and grate; i smoke-pipe; J partition around fire-box; K cold air descending-pipe; L water-pan; l openings in same; M air chamber around fire box; N inside cylinder; O outside cylinder; o openings between cylinders for air to descend; P volatile liquid box; a end of smoke-pipe with cover; b pipe to lead off volatile liquid; d pipe to lead off volatile liquid from smoke chamber; Q ash-drawer; e openings in same; R outside partition; r openings in same; S supply water-pipe; s ball and faucet attached to same; T shows line of first division plate; x are standards, with screws and nuts z.

*Claim*.—The combination and arrangement of the various parts as described, for the purposes specified; also, the evaporation-pan L in the hot-air chamber of the furnace, when made adjustable vertically, for the purposes specified and set forth.

No. 19,502.—JAMES W. GEDDES, of Baltimore, Maryland.—*Improvement in Registers for Hot-Air Furnaces*.—Patent dated March 2, 1858.—This invention consists in a peculiar construction of the hot-air registers of furnaces for warming buildings, for the purpose of protecting the building from fire. A represents the floor of an apartment into which the hot air from the furnace is conducted through the flue B and register D. The register is set in a cap E of soapstone or other equivalent non-conducting incombustible material. This cap is penetrated freely with numerous vertical passages F, which communicate with the open or ventilated casements H. These casements are made of bright tinned iron, and their floor K is perforated similarly to the cap E.



The inventor says: I am aware that it is a common practice to surround stove-pipes, where they pass through the walls and floors of buildings, with collars in "flue pots" of earthenware, and also with metallic jackets, and I lay no claim to such devices.

But I *claim* the mode set forth of constructing the fire-proof settings for registers for hot-air furnaces, the same consisting in the employment of one or more ventilated casements surrounded by a perforated cap of non-conducting incombustible material, as described.

I also claim the flaring tubular terminations  $F^1$  of the passages H, for the purposes set forth.

No. 19,678.—EBENEZER BARROWS, jr., of Brooklyn, New York.—*Improved Self-Adjusting Damper for Hot-Air Furnaces*.—Patent dated March 23, 1858.—This invention consists in placing in the lower part of each hot-air conducting pipe C a valve or damper F, hung on an axis in nearly an equilibrated state, so that when the register of the pipes is closed, and the draught through them consequently stopped, the dampers will close by their own gravity and shut off the pipes from the air-heating chamber.

The inventor says: I do not claim broadly the employment or use of valves or dampers placed in the hot-air conducting pipes of air-heating furnaces, for they have been used for similar or analogous purposes.

But I *claim* placing the valve or damper F in the lower part of the hot-air conducting pipe C when said valve is so hung or arranged to operate as and for the purpose shown and described.

No. 21,644.—JAMES ALCORN, jr., of Charlestown, Massachusetts.—*Improvement in Steam Boiler Furnaces*.—Patent dated October 5, 1858.—This invention consists in a novel arrangement of passages for the purpose of causing the return from the back part of the furnace and from the lower part of the smoke-stack to the ash-pit of considerable portions of the smoke and inflammable matters escaping from the fire-box, and the consumption of these matters, by causing them to pass through the fire on the grate, with the fresh air admitted to produce the combustion of the fuel on the grate.

The inventor says: I do not claim returning a portion of the gaseous products of combustion to the fire.

But I *claim*, first, the arrangement of the chambers  $C^1$   $C^2$   $C^3$ , with their respective passages I  $C^4$   $C^4$   $I^1$   $I^1$  communicating with the smoke-stack, and the passages T G G and the chamber B communicating with the ash-pit, substantially as and for the purpose set forth.

Second. The arrangement of the cone-pipe D, with its deflecting cover V, and the pipe H, in combination with the chamber B, arranged in rear of and communicating with the ash-pit, substantially as and for the purpose described.

No. 20,667.—SILAS T. SAVAGE, of Albany, New York.—*Improvement in Furnaces for Boilers and Stoves*.—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.



The inventor says: I do not wish to be understood as making claim to the use of a perforated air chamber to supply atmospheric air in small jets to inflame the gaseous products of combustion, as I am aware that this has long been known and tried in various forms, but not, as I verily believe, substantially in the manner or with the results specified.

What I *claim* is, the arrangement of the air chamber, substantially as described, with the perforated bottom of a conical or equivalent shape placed in the upper part of the fire chamber, with the concave surface downward toward the fire and with a central aperture leading to the chamber of inflammation, substantially as and for the purpose specified.

No. 20,351.—WILLIAM D. JONES, of Hagaman's Mills, New York.—*Improved Apparatus for Separating the Combustible from the Incombustible Gases or Products of Combustion in Furnaces, &c.*—Patent dated May 25, 1858.—This invention consists in the construction and arrangement of the parts of an apparatus for separating, to a certain extent, the combustible from the incombustible gases of combustion, in such form as to make the apparatus applicable to all steam boilers or other furnaces or to stoves.

The inventor says: I do not claim the returning of the combustible portion of the volatile or gaseous products of combustion to the fire.

Nor do I claim, broadly, the separation of the combustible from the incombustible products by the difference in their specific gravity.

But I *claim* the box A, with its inlet *a*, separating diaphragm *b*, chambers B and C, pipe or passage *f*, and two fan blowers D and F, arranged in the manner substantially as described and operating as set forth.

No. 19,720.—DENNIS SULLIVAN and MICHAEL MCINTYRE, of Cincinnati, Ohio.—*Improvement in Gas-Burners.*—Patent dated March 23, 1858.—A is the base by which the burner is attached to the pipe; B is the cap or exterior part of the burner attached to the base by means of a screw joint at *a*; C is a plug or stem screwed into the base A, and extended centrally within the burner to near the tip *e*; *c c* are slots in the foot of the plug C, through which gas passes to the heating chamber *b*.

*Claim.*—The construction and arrangement substantially as described of the plug C, regulating the flow of gas to any extent desired.

No. 19,959.—WILLIAM TALLMAN, of Cincinnati, Ohio.—*Improvements in Gas-Burners.*—Patent dated April 13, 1858.—A is the base of the burner by which it is attached to the pipe. The gas passes upward through holes *a* into the lower chamber *b*, against the walls of which it is deflected by an imperfect disk C, fixed concentrically within said chamber, and of such size that a slight chink *c* intervenes all around between the disk and the walls of the chamber, through which chink the gas passes in the form of a hollow film, uniting again above.

The inventor says: I am aware that disks have been employed



within gas-burners to act on the principle of valves, I therefore do not claim such.

But I *claim* the construction and arrangement, substantially as described, of the disk *c*, fixed concentrically within the burner, so as to leave around it a contracted annular passage *c*, for the purpose explained.

No. 20,584.—AMOS H. RAY, of Boston, Massachusetts —*Improvement in Gas-Burners*.—Patent dated June 15, 1858.—D is a hollow fluted or corrugated cone, which fits into the ring *a*. The cone is closed at the bottom and open at the top, and its interior thus forms a continuation of the chamber F; into this chamber, and nearly to the bottom of the cone D, projects the tube G, which descends from the tip or jet H and passes through a hole in the part C to which it is brazed.

*Claim*.—The described gas-burner, consisting essentially of the chamber F, heating tube G, and the cone D, or its equivalent, operating in the manner substantially as set forth.

No. 20,626.—ROBERT CORNELIUS, of Philadelphia, Pennsylvania.—*Improvement in Gas-Burners*.—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* constructing fish-tail gas burners with an interior annular space *g g* extending to the commencement of the holes of discharge *e*<sup>1</sup> and *d*<sup>1</sup>.

I also claim the auxiliary holes *l l*<sup>1</sup>, or 1 2 3 4, in combination with a fish-tail burner, arranged and operating substantially as described.

No. 21,076.—FREDERICK CHARLES KRAUSE, of New York, N. Y.—*Improvement in Gas-Burners*.—Patent dated August 3, 1858.—This improvement consists in the manufacture of gas-burners for heating purposes, of a composition made by mixing pulverized burnt clay with powdered glass, carbonate of soda, or some other flux or substance of similar character, which may be boxed with the clay at a low red or white heat, and by its fusion at such heat serve to unite the particles of fine clay, but yet make with it a composition of a very porous character, which is sufficiently refractory to enable the gas to be burnt on its surface and to bear the repeated heating and cooling to which a gas burner is subject.

The inventor says: I do not claim to be the first inventor of a porous gas burner, as I am aware that they have been constructed of wire gauze, and by making beds of such material covered with broken pumice stone, and of some other substance.

But I *claim* the manufacture of gas burners, or those parts of them from which the gas is to be emitted, of the porous composition produced by the union of the substances specified, in the manner set forth.

No. 21,229.—WILLIAM WRIGHT, of St. Louis, Missouri.—*Improvement in Gas-Burners*.—Patent dated August 17, 1858.—The nature of this invention consists in the peculiar construction of the burner, whereby the flow of gas through it is regulated, and whereby the



direction of the current is changed and the gas forced against the heated sides of the burner, thus rarefying it and purifying it and preventing it from blowing through.

The inventor says: I lay no claim to any of the devices used in the inventions of C. H. Johnson or E. P. Gleason, or A. H. Ray, or J. C. Walsh, as such.

But I *claim* the adjustable valve *g*, in combination with the chamber *s* in which the said valve seats, and the adjusting nut *c* around the said valve, whereby the joint is made tight in any given position, for the purpose specified.

No. 21,497.—LUCIEN E. HICKS, of New York, N. Y.—*Improvement in Gas-Burners*.—Patent dated September 14, 1858.—This invention relates to the construction of gas-burners which have caps made with a crown concave internally applied to them. And it consists in making the outer surface of the crown of the cap flat or nearly flat, and the orifice through which the gas escapes of circular form horizontally and with its edge curved in the path of two vertical circles as delineated in the sectional view of the drawing.

The inventor says: I *claim*, in the construction of gas burners which have caps made with a crown concave internally applied to them, making the outer surface of the crown of the cap flat or nearly flat, and the orifice *d* through which the gas escapes of circular form horizontally and with its edge curved in the path of two vertical circles as delineated in the sectional view of the drawing, for the purposes set forth.

No. 21,586.—A. H. WOOD, of Boston, Mass.—*Improvement in Gas-Burners*.—Patent dated September 21, 1858.—This improvement consists in a novel arrangement of devices by which the width of the flame is increased, and the heat from the flame conducted to a height above the orifice of the burner.

*Claim*.—The combination with a gas burner of metallic flanges or spreaders, arranged near and above the orifice of the burner, as described, for the purpose of spreading the flame and consuming the impurities of the gas, whereby the orifice is kept clear, as set forth; and this I claim, whether the conducting rods be used or not.

No. 21,728.—JUNIUS F. FOZER, of Binghampton, N. Y., assignor to GEORGE W. GREGORY, of said Binghampton.—*Improvement in Gas-Burners*.—Patent dated October 5, 1858.—The nature of this invention consists in providing a stop-cock to pass through the base or thick part of the burner, which has two or more gauge-holes, or orifices, through which the gas is admitted into the supplementary chamber, so that by turning it a given distance it will vary the amount of gas to be consumed from a two feet to that of a four or six feet burner.

*Claim*.—The application to the common gas-burner of the two or three way turning cock, for the purpose set forth.



No. 21,733.—YARNALL BAILEY, of Philadelphia, Pa.—*Improvement in Gas-Burners*.—Patent dated October 12, 1858.—This invention consists in so constructing and arranging the generator of self-generating gas-burners in connexion with the tube and burner that the said heater may be adjustable in such a manner that when the heater is extended it will present more surface to the flame, which, consequently, generates more vapor or gas, and the extent of the light is increased; by lowering the heater less surface is exposed to the flame, and the opposite results are obtained. By this arrangement the extent of the flame may be increased or diminished at pleasure.

*Claim*.—The mode of producing a flame, the extent of which may be increased or diminished at pleasure by means of the adjustable heater D, in connexion with the tube B and the burner *b*, substantially as described, or any equivalent to the same.

No. 20,604.—WILLIAM W. BATCHELDER, of New York, N. Y., assignor to WILLIAM J. TOWNSEND, of said New York.—*Improvement in Argand Gas-Burners*.—Patent dated June 15, 1858.—This invention consists in surrounding the central ring of flames by an additional ring *a*, composed of lesser jets, which are placed equidistant from the central one, as well as from each other.

*Claim*.—Surrounding the cylindrical flame of an argand burner with supplemental jets, placed at such distances from each other and from the central flame that they shall neither intermingle with each other, nor with said flame, and of such number as will produce the effects described.

No. 21,090.—JOSEPH E. STANWOOD, of Malden, Mass.—*Improvement in Argand Gas-Burners*.—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the argand burner as constructed with two chambers connected by tubes so arranged as to allow the air to flow between them into the space surrounded by the upper or annular chamber.

But I *claim* the improved argand burner, as made with its several supporting tubes C C C of its annular chamber extended down within the lower or receiving chamber and around its entrance hole or passage, substantially in manner as described, and for the purpose of preventing noise or singing of the flame when the burner is in operation.

I also claim the combination and arrangement of the described perforated partition *f* with the annular or upper chamber of the burner, and having its perforations or spaces between the same disposed with respect to the mouths of the inlet tubes, substantially as specified.

No 22,331.—CALVIN PEPPER, of Albany, N. Y., assignor to Himself and JOHN G. TREADWELL, of said Albany.—*Improvement in the Method of Applying Gas for Heating and Illuminating Purposes*.—Patent dated December 14, 1858.—The nature and object of this invention will be understood by an examination of the claim and engraving.

The inventor says: I do not claim to be the first inventor of a porous gas-burner, as I am aware they have been constructed of wire



gauze, and by making beds of such material covered with broken pumice stone, and by a composition of matter patented by F. C. Krause, and by some other substances other than silicious sand; and I do not claim the burning of gas in such way, except through silicious sand in a state of division; and I do not claim to be the inventor of passing gas through sand for the purpose of purifying the gas; I make no claim for burning gas for illuminating purposes only, after having passed through the sand and separate from the same; I make no claim in this application for the use of gas or sand in a separate state; and I make no claim for the ventilating arrangement described, or for the admixture of gas and atmospheric air before burning.

What I *claim* is passing coal for other inflammable gas alone, or in admixture with atmospheric air, through a stratum or mass of silicious sand, without aggregation of particles to be inflamed at the surface, substantially as described, for heating purposes, and also for illuminating, as incident thereto, as described.

No. 19,185.—PATRICK S. DEVLAN, of Camden, New Jersey.—*Improved Gas Heating Apparatus*.—Patent dated January 26, 1858.—A represents a supporting frame or base for the apparatus. To this frame is attached a reservoir or tank B for containing water, a steam generator C, and a radiator D, which parts, with their connexions, form the main elements of the apparatus. The apparatus is mainly designed to be used with gas as a heating medium, because the common illuminating gas may be divided into small jets, and by introducing more oxygen into it, it becomes a highly heating gas, losing its illuminating property in the same ratio, and is thus peculiarly adapted to lighting and heating, as it may be required for either purpose, and changed from one to the other.

*Claim*.—The arrangement of the tank, generator, and radiator, with each other, and with a gas-burner, substantially as set forth, and for the purpose of making a gas heating apparatus for warming rooms, chambers, &c., as described.

No. 22,134.—SILAS T. SAVAGE, of Albany, N. Y.—*Improvement in Grate Bars*.—Patent dated November 23, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The employment of the bar *a* when provided with a series of flanges which form an arc above the bar, and which taper from the extremities of the cord of said arc to or near the bottom of the bar, thus supporting the coal in arches above the bar, and at the same time strengthening and sustaining the bar by the tapering sides of the flanges, substantially in the manner specified.

No. 21,157.—JOSEPH H. THOMAS, of Newark, New Jersey.—*Improvement in Folding Gridiron*.—Patent dated August 10, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I do not claim the invention of double or folding gridirons.

But I *claim* the application to a folding gridiron of the hinge joint,



formed by the slotted stands *b b*, and the projecting bearings on the ends of the back cross-bar *a*, or their equivalents; the jointed handle *e* and slotted standard *f* or their equivalents; the whole forming an adjustable folding gridiron, substantially as described.

No. 20,939.—CHAUNCEY A. DICKERMAN, of New Haven, Connecticut.—*Improved Steam Heater*.—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The arrangement of the chest of steam-heating flues I I I I I I, mutually parallel, and inclined as described, in combination with similarly inclined and parallel air flues K heated thereby. Both the steam and the air having passed once through its flue on passage across the chest, is at once discharged to its final destination in the manner and for the purpose set forth. The arrangement or combination as thus described and represented I claim as an efficient and cheap apparatus.

No. 19,197.—JOHN C. HOADLEY, of Lawrence, Massachusetts.—*Improvement in Heaters or Coolers*.—Patent dated January 26, 1858.—The nature of this invention consists in forming heaters or condensers, or sections, by constructing an outside case with heads, having tubes *e e* joining and connecting the heads within the space enclosed by them and the case *c*, so that there will be no joints between the case and heads, or between the tubes and heads.

*Claim*.—Constructing heaters or coolers by forming the tubes, tube sheets, and case thereof of homogeneous metal and without joints uniting said parts.

No. 22,109.—WILLIAM H. CHURCHMAN, of Janesville, Wisconsin.—*Improved Apparatus for Heating and Ventilating Buildings*.—Patent dated November 23, 1858.—The nature of this invention consists in arranging within the double walls of a furnace, placed in a suitable part of a building to be heated, a series of peculiarly formed rarifying metallic drums, to which a moderate degree of heat is imparted, and causing said drum to communicate by suitable pipes at the upper and lower parts with venti-ducts or flues, extending to the apartments to be heated, in such a manner as to produce a continuous draught of air from the apartments through the drums and thence back again to said apartments in a heated state.

*Claim*.—The peculiar arrangement and combination of the induction and eduction flues, or venti-ducts K K<sup>1</sup>, the continuation flue of the venti-duct K<sup>1</sup>, the damper *j*, and the registered openings *f g h i*, whereby any number of the rarifying drums D, with their accompanying venti-ducts K K<sup>1</sup> may be used at pleasure, either for warming or ventilating alone, or for both at the same time as described.

No. 19,775.—FRANCIS L. HEDENBERG, of New York, N. Y.—*Improved Heating Apparatus*.—Patent dated March 30, 1858.—The nature of this invention consists in the manner of arranging within the case A, the fire-box B, combustion, spark, or draught chamber J, and the gas and air pipes M N, so that they shall be surrounded by



water space, the object being to regulate draught and to make available all the heating surfaces possible.

*Claim.*—The arrangement within the case A, of the fire-box B, spark or draught chamber J, and the flue and air pipes M N, the whole being surrounded by water space, and connected and arranged substantially in the manner and for the purpose set forth.

No. 21,185.—HENRY G. BULKLEY, of Kalamazoo, Michigan.—*Improved Steam-Heating Apparatus.*—Patent dated August 17, 1858.—This invention consists in heating air for warming houses, &c., by causing it to pass through pipes, passages, or chambers, which are wholly or partly surrounded by, or which surround, a chamber containing super-heated steam of a very limited pressure.

The inventor says: I do not confine myself to any particular construction of the furnace or apparatus employed in carrying out my invention.

But I *claim* the surrounding of the air passages by a steam atmosphere, to which heat is applied after the steam is generated, for the purpose of increasing the temperature of the steam without high pressure for making a rapid, safe, economical, and wholesome heat, substantially as specified.

No. 20,917.—J. H. CHESTER, of Cincinnati, Ohio, assignor to M. A. CHESTER, of Cincinnati aforesaid.—*Improved Radiator for Heating Buildings, &c., by Combustion of Gas or Alcohol.*—Patent dated July 13, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—The radiator constructed with a central opening C C in its bottom, to receive the flame and heated products of combustion from the burner, and with the surface of said bottom inclining downwards from said opening towards two openings *d d*, at the ends, and with the wire gauze cylinders or their equivalent *l l k k*, between the slides, by which means combined provision is made for the condensation and free escape of the water of condensation, together with such carbonic acid as may be absorbed by it.

No. 21,195.—ADOLPH HAMMER, of Reading, Pa.—*Improvement in Apparatus for Heating Mash Tubs.*—Patent dated August 17, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that Bessemer's apparatus for warming saccharine liquids both warms the contained liquid and washes the molasses from the crystalline sugar; but this apparatus is in no way adapted for producing and extracting from malt the required saccharo-mucilaginous matter which with water, constitutes wort. I therefore do not claim anything appertaining to said apparatus.

But I *claim* the arrangement on the outside of the mash tun described, and in combination therewith of a steam heater, in such a manner that any suitable quantities of the fluid extract of the malt may, at the discretion of the operator, be withdrawn from the tun through the said heater, so as to be warmed by the latter as it passes



through the same to any suitable receiver provided for the purpose, that it may immediately afterward be returned into the tun for the purpose of raising the temperature of the mash therein to the degree required as described; the said heater being connected with the interior of the tun, and the said pipes being provided with cocks, substantially in the manner set forth and described.

No. 20,767.—JOSEPH P. WHITE, of Philadelphia, Pa., assignor to Himself and FRANCIS FOX, of said Philadelphia.—*Improved Apparatus for Heating Tires*.—Patent dated June 29, 1858.—This invention consists in so combining a casing B, having a lid and a revolving grating C, with a fire chamber S, and a blowing apparatus R, and in so arranging the whole, that a flame of intense heat may be forced into the casing and take a course round the same, thereby imparting to the tire placed on the grating an uniform heat throughout.

*Claim*.—The casting B, with its revolving grate and lid, in combination with the fire chamber S and fan R, or other equivalent blowing apparatus, when the whole are arranged for joint operation, substantially as and for the purpose set forth.

No. 20,856.—JOHN J. BATE, of Brooklyn, N. Y.—*Improvement in Kettles for Rendering Lard*.—Patent dated July 13, 1858.—The object of this invention is to provide means by which a passage is made from the exterior to the interior of the central heater of a double steam kettle, so that the contents of the kettle and heater can communicate with each other for the more ready clearance of the contents of the heater, and for the purpose of expediting the process of rendering.

*Claim*.—Providing a means of communication between the exterior and interior of the heater C, by the apertures D D<sup>1</sup>, so that the contents of the kettle and the heater can communicate with each other, as and for the purpose set forth.

No. 19,266.—JOHN STUBER & RICHARD HUGHES, of Utica, New York.—*Improvement in Lamps*.—Patent dated February 2, 1858.—The nature of this invention will be understood by reference to the claims and engravings.

The inventors say: We *claim* so constructing and arranging the upper half of the feed pipe *j* of a spring or mechanical lamp that the lower half will be free to slide to the top, or nearly so, of the wick tube for the purpose of lessening the height of the latter and of rendering the lamp more compact, substantially as set forth.

Second. The arrangement and combination of the elastic strip *p*, pin *q*, and slot *y*, with the rods *t*, and loops *u*, the whole being constructed and operated in the manner substantially as set forth, for the purpose of forming an elastic piston for a lamp.

No. 19,896.—PASCAL PLANT, of Washington, D. C., assignor to Himself and PETER HANNAY, of said Washington.—*Improvement in Lamps*.—Patent dated April 6, 1858.—The nature of this invention consists in forcing through the lower part of the flame a current of



fresh air, so that the oxygen therein contained shall be brought immediately in contact with the carbon the moment the degree of temperature of the latter is sufficiently high to promote combustion.

*Claim.*—Forcing a current of air through the lower or blue part of the flame by means of a cap-piece, constructed and arranged in relation to the wick-tube, in the manner and for the purposes substantially as set forth.

No. 19,898.—ROBERT STEINMANN, of Boston, Massachusetts, assignor to Himself and N. S. WAX, of said Boston.—*Improvement in Lamps.*—Patent dated April 6, 1858.—The object of this invention is to produce a lamp in which grease and fats of inferior quality can be burned without danger of choking up the lamp and without producing the disagreeable smell which usually accompanies the use of such materials, and by heating the air which supplies the combustion of the oil or melted fat, before it comes in contact with the flame, to produce a more perfect combustion and thus give a clearer flame and avoid smoke and dirt.

The inventor says: I *claim*, first, the arrangement of the elevated reservoir I, with its filter K and passages of communication G and H, operating in the manner substantially as set forth.

Second. In combination with the reservoir I, the passages G and H, and the oil chamber D, I claim the bent tube *n* operating in the manner substantially as described.

Third. And in combination with the elevated hot oil reservoir I, I claim the plate L for the purpose of regulating the temperature of the fat or oil, as specified.

No. 20,159.—EDWARD F. JONES, of Boston, Massachusetts.—*Improvement in Lamps.*—Patent dated May 4, 1858.—This invention consists in holding the deflector, as well as the chimney, fast to the cap B of the lamp by means of a spring *e*, so that the chimney and deflector or either of them may be readily removed by merely pressing back a spring. The spring *e* is formed of thin metal, having short bends at 1 and 2 to catch over the lip or base of the chimney.

*Claim.*—Securing the chimney to the removable cap, and both of them to the lamps by means of a spring operating in the manner substantially as set forth.

No. 20,134.—L. BAILEY, of Charlestown, Massachusetts, and R. THAYER, of Boston, Massachusetts.—*Improvement in Lamps.*—Patent dated May 4, 1858.—This invention consists in a peculiar construction of the lamp whereby the reservoir containing the burning material is kept in a cool state, the flame supplied with a large amount of oxygen commensurate with its requirements to produce a perfect combustion, the light is readily graduated and wholly extinguished, when necessary, without the emission of smoke or any disagreeable odor.

The inventors say: We *claim*, first, the arrangement of the annular reservoir G within the case C, as shown, so that both the inside and the outside draughts of the flame may be supplied up through the

base and pedestal, and in their passage cool all sides of the reservoir, substantially as set forth.

Second. The button L, when made of concavo-convex form and of the proper dimensions, so as to throw the air that passes up through the central passage H down on the flame and at the same time permit the flame to rise vertically, instead of spreading it laterally as usual.

Third. The combination of the revolving cap E, wick-tube I with or without the button L, and the annular reservoir G, arranged relatively with each other and used in connexion with the case C, the hollow pedestal B, and base A, substantially as described and for the purpose set forth.

No. 21,069.—WILLIAM FULTON, of Cranberry, New Jersey.—*Improvement in Lamps*.—Patent dated August 3, 1858.—The object of this invention is to adapt a lamp for burning equally well all the different substances used for illuminating purposes, however much they may vary in the amount of carbon they contain. This object is obtained by applying a register to the cap of the lamp and using in connexion therewith a perforated plate or air distributor.

*Claim*.—The register formed of the perforations *e* in the top A and the perforated plate *f* placed within the top, in combination with the perforated or air-distributing plate A, the whole being arranged substantially as and for the purpose set forth.

No. 21,344.—JAMES P. KENYON and ELLEN KENYON, of Brooklyn, New York.—*Improvement in Lamps*.—Patent dated August 31, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, constructing and arranging the wick tubes so that the orifice of the air passage at the upper ends of said tubes may be expanded or contracted without the necessity of changing the relative position or location of the lower ends of said tubes to each other, substantially as and for the purposes set forth.

Second. The band D provided with the ears E, applied to the wick tubes C C, and used with or without the central strip N, for the purpose specified.

No. 21,576.—CHRISTIAN REICHMANN, of Philadelphia, Pennsylvania.—*Improvement in Lamps*.—Patent dated September 21, 1858.—The nature of this invention consists in the slotted open bell-shaped cap, that is a cap which admits of the external air passing in between its outer margin and the chimney, and which also allows the light to be reflected downward or towards the flame as well as above it.

*Claim*.—In combination with the lamp, the slotted open bell-shaped cap *m*, when so constructed, arranged and operating as to allow light to be deflected downward, substantially in the manner and for the purpose set forth and explained.

No. 21,627.—WILLIAM H. RACEY, of St. Augustine, Florida.—*Improvement in Lamps*.—Patent dated September 28, 1858.—The object of this invention is to obtain a lamp by which the flame may be supplied with a large or requisite amount of oxygen, without the employ-



ment of the glass chimney which has hitherto been used for such purposes. This lamp although applicable to any of the materials or substances now used for illuminating purposes, is more especially designed for burning coal oil and similar substances that are rich in carbon, and which consequently require a large amount of oxygen to support proper or perfect combustion.

*Claim.*—The case G provided with a cap L, and used with or without the external case T, the case and cap being placed relatively with the frame M, as described, so as to operate as and for purpose set forth.

No. 21,627.—WILLIAM MULHOLLAND, of Brooklyn, New York.—*Improvement in Lamps.*—Patent dated September 28, 1858.—This invention consists in having a central air tube placed within the lamp, and a wick tube placed at each side of its upper end, and a register at its lower end, the above parts being used in connexion a perforated cylindrical cap, provided with deflectors at the centre of its top plate, whereby, the flame may be supplied with a large volume or amount of oxygen, and the same regulated as occasion may require.

*Claim.*—The arrangement of the central air tube B extending through the body A of the lamp, and communicating at its lower end with the rack a, provided with a register C and perforated plate a, with the wick tubes c c placed at opposite sides of the air tube B, and the perforated cap D, provided with the deflector f, the whole being constructed and operating as and for the purpose set forth.

No. 22,327.—NATHANIEL CRADIT, of Ripley, Ohio, assignor to CHESTER G. ROBINSON, of South Reading, Massachusetts.—*Improvement in Lamps.*—Patent dated December 14, 1858.—This invention consists in the class known as circular wick lamps, and consists—

1st. In an arrangement of draught passages to maintain an equable flow of air to the interior and exterior of the flame, respectively, and to effectually consume volatile matters rising from the oil ; and

2d. In an arrangement by which the wick may be inserted and regulated in height with equal facility to a flat wick.

The inventor says: I *claim*, first, the described or equivalent arrangement of draught passages b l 3 communicating with the oil reservoir, and central tube Q conducting the air and gases from thence to the interior of the wick, as explained.

Second. The box M P Q and shell H in the described combination with two rectilinear sets of wick-elevating pinions, or their equivalents, by which two flat wicks are converted into one circular wick, as set forth.

No. 22,409.—WILLIAM W. BATCHELDER, of New York, N. Y.—*Improvement in Lamps.*—Patent dated December 28, 1858.—This improvement consists in the use of tapers, or wick tubes, placed below and on both sides of a flat wick tube, or main illuminating burner, in combination with a suitable cap, thus supplying sufficient oxygen completely to burn the oil without a chimney, and also without raising the cap so as to obscure a large portion of the main frame.

*Claim.*—The small tapers or wick tubes D placed on both sides of



the flat burner or wick tube C, in combination with the cap A, when the said tubes and cap are used without a chimney, substantially as set forth for the purposes described.

No. 20,289.—OSCAR F. MORRILL, of Boston, Massachusetts.—*Improvement in Aero-vapor Burners for Lamps*.—Patent dated May 18, 1858.—The particular object of this invention is to enable a person to use the areo-vapor or ero-vapor to good advantage in a stove furnace, and easily regulate the amount of the production of hydro-carbon vapor as circumstances may require.

The inventor says: I *claim* the arrangement and application of the bent tube E with the wick-holder or vaporizer provided with one or more heat conductors, or equivalent devices, the same being to enable the production of vapor to be regulated in manner and conducted into the mixer, as specified.

I also claim the mode of applying the rod of the wick-tube slider to the generator, viz: by carrying it through a tube extending through the reservoir of the generator, as set forth.

No. 19,885.—WILLIAM W. WADE, of Longmeadow, Massachusetts, and CHARLES BURNHAM, of Springfield, Massachusetts.—*Improved Lamp Attachment*.—Patent dated April 6, 1858.—A is a wick or tube; B is a spindle, having ratchet surface wheels fixed thereon, working into the wick tube for the purpose of raising or depressing the wick; c is the base which is fitted or secured to the lamp; D is a deflector; E E are series of perforated holes, so as to allow a free admission and circulation of air; F is a groove in the chimney band; G is a flange on the deflector, of such size as to allow it to slide loosely down the inside of the chimney band into the groove F; J is a wire spring for the purpose of holding the band secure to the shell.

The inventors say: We are aware that deflectors or chimney bands have been used; also that chimney bands have been attached to the top of the shell by hinges projecting outward; and also that openings have been used as fasteners for various other and different purposes than described; such we do not claim.

But we *claim* securing the deflector G into the groove of the chimney band J, the said band being hinged to the lamp cap, the whole constructed and operating in the manner set forth.

No. 20,178.—RALPH THOMAS, of Hoboken, N. J.—*Improved Lamp Attachment for Preventing Smoke, &c.*—Patent dated May 4, 1858.—This invention consists in attaching to the burner of lamps, a movable metal cap, so constructed as to fit upon the burner and attaching itself to the same, by which the consumption of the oils or fluids is in proportion to the amount of light the lamp is calculated to give, that it regulates the flame and thus by producing checks upon the upper tier of ventilating holes prevents excessive smoke.

*Claim.*—The movable cap provided with a schreved screen top A, and base piece C, when applied to lamps, constructed and operated as set forth and described.



No. 20,977.—MARK SAFFORD, of Boston, Mass., assignor to Himself and GEORGE P. KINNEY, of Boston, aforesaid.—*Improvements in Burners and Wick Tubes of Vapor Lamps*.—Patent dated July 20, 1858.—The claims and engravings explain the nature of this invention.

The inventor says: I *claim* the combination of the auxiliary wick with a lifter or rod, or with the same and extinguisher, so as to enable such wick to be moved in its tube in manner and for the purpose essentially as specified.

I also claim, in combination with the vapor generator, and its auxiliary wick tube *f*, a closing cap or extinguisher *a*, and one or more conduits *n n*, applied in the wick tube, substantially in manner as specified, the whole being to produce effects as stated.

I also claim a foraminous wick tube, or its equivalent, in its combination with a main wick and an auxiliary wick applied to it, and to operate with it, substantially in manner as explained.

No. 22,253.—JOSEE JOHNSON and FREDERICK BAILEY, of New York, N. Y.—*Improvement in Burners for Lamps*.—Patent dated December 7, 1858.—The two metal tubes *a a* connected at their upper extremity by the circular retort *F*, which joins to said tubes at point *x x*. The tubes *a a* are made of very thin metal, and the retort *F*; *m n* are two ordinary tubes, situated on each side of the tubes *a a* and *d*. The tubes *m n* and *d* are provided with wick which extends up in them only to that point where the retort joins them, there being no wick in the retort.

*Claim*.—The combination in a lamp of the tubes *a a d m n*, glass tubes *c c c*, and barrel *B*, the same being constructed and operated substantially in the manner and for the purpose set forth.

No. 22,230.—M. B. DYOTT, of Philadelphia, Pa.—*Improvement in Burners for Lamps*.—Patent dated December 7, 1858.—This invention consists in so constructing the lamp top of a gas generating lamp, as that the light of said lamp may be regulated by raising and lowering the heater and pin while the head of the burner remains stationary, or raising or lowering the head of the burner with the heater or pin. And it also consists in the valve on the pin, and the valve seat in the side of the tube or burner, for the purpose of opening or closing entirely or partially, the passage through which the vapor or gas passes from the wick to the opening or openings at which the gas burns.

The inventor says: I *claim*, first, regulating the light of a gas lamp by raising and lowering the heater and pin connected to it, while the head of the burner remains stationary, substantially as described.

I also claim, in combination with the heater and burner, the valve or projection *n* on the one, and the valve seat *o* on the other, when the said valve and seat are located between the top of the wick and the openings at which the gas is burned, substantially as described.

No. 20,232.—THOMAS VARNEY, of San Francisco, California.—*Improvement in Burners for Vapor Lamps*.—Patent dated May 11, 1858.—This invention relates to the construction of burners for burn-



ing the vapor of benzole, or other hydro-carbons that can be burned in vapor lamps, in such a manner that the admixture with the vapor of the necessary quantity of air, supplied in such a manner by a blowing apparatus to make it burn with a brilliant flame, shall be effected within the burner, instead of within the reservoir.

*Claim.*—The arrangement of the tubes *a b e f*, and the passages between them, the burner tip, the wick, and the pipes B C, substantially as set forth.

No. 20,296.—JOHN K. O'NEIL, of Kingston, New York.—*Improvement in Burners for Vapor Lamps.*—Patent dated May 18, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—The arrangement of the burner beneath the vaporizing tube or chamber in such a manner as to be movable or adjustable to different distances therefrom, whereby the amount of light produced and of vapor generated may be exactly and in all degrees regulated simultaneously, and be mutually dependant on each other, in the manner specified.

No. 20,498.—C. B. LOVELESS, of Syracuse, New York.—*Improvement in Burners for Vapor Lamps.*—Patent dated June 8, 1858.—The nature of this invention consists in a crescent-shaped generating chamber *d* situated at the crown of a siphon-tube chamber *c*, and in communication therewith, the said chamber being directly above the burner, which is at the extremity of the short branch of the tube; the long branch furnishes the supply of fluid.

The inventor says: I do not claim of itself the burner and chamber on which it is situated.

But I *claim* the crescent-shaped generating chamber *d*, as described, and its arrangement with the siphon-tube chamber *c* and burner *f*, substantially as and for the purposes set forth.

No. 21,053.—GEORGE W. RANDALL, of Boston, Massachusetts, assignor to REUBEN J. TODD, of Boston, aforesaid.—*Improvement in Burners for Vapor Lamps.*—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—The application of the valve and its seat to the generator A and the button C, or heat absorber, the same consisting in making such valve B and seat tapering, and arranging them in the generator, and maintaining them in contact by the action of a spring E, and connecting the valve with a separate button in such manner that the button, besides performing its office of absorbing heat from the flame, may serve, with the spring, to maintain the valve in place against its seat, and to rotate the valve as specified.

No. 21,116.—FREDERICK HEIDRICK, of Philadelphia, Pennsylvania, assignor to C. F. CLOTHIER, of said Philadelphia.—*Improvement in Burners for Vapor Lamps.*—Patent dated August 10, 1858.—This improvement consists in the employment of a loose washer acting in conjunction with the usual wick tube, hollow burner, and button of this class of lamps, in order that the escape of vapor may be regulated



with exactitude and facility, and that its escape may be entirely cut off when the flame is extinguished, thus preventing the escape of fluid.

The inventor says: I lay no exclusive claim to the hollow burner F, the spur H, or to the introduction of the non-conducting material between the tubes A and B; but

I *claim* the employment of the self-adjusting washer I, in connexion with the burner F, button G, and wick tube D, in the manner and for the purpose set forth.

No. 22,270.—E. M. WILLIAMS, of Philadelphia, Pennsylvania, assignor to Himself and JOHN GABEL, of said Philadelphia.—*Improvement in Burners for Vapor Lamps*.—Patent dated December 7, 1858.—This invention consists in the use of a sliding wick tube fitted in the cap of the lamp, and placed in close relation with one or more vapor tubes, whereby the latter, by the adjustment of the former, may be heated to a greater or less degree, and an illuminating flame of a greater or less degree of brilliancy obtained, as may be desired.

The inventor says: I am aware that vapor lamps have been constructed in which a supplemental flame has been employed for volatilizing the fluid, but I am not aware that a sliding supplemental wick tube, arranged as shown and described, has been employed for the purpose of graduating the heat employed for volatilizing the fluid within the lamp, and thereby regulating the power of the illuminating flame, as may be desired. I do not claim, therefore, broadly, the employment or use of a supplemental flame for volatilizing the fluid within the lamp.

But I *claim* the supplemental sliding wick tube D, arranged relatively with one or more vapor tubes C, to operate substantially as and for the purpose set forth.

No. 22,465.—SIGOURNEY WALES, of Boston, Massachusetts.—*Improvement in Burners for Vapor Lamps*.—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—When the wick is supported on and around an inner wick tube, and within an outer wick tube, and the jet cap is made separate from, and so as to screw or fit on, the outer wick tube, as described, the application of the rod F to the movable jet cap D, and extend into and fit the bore of the tube E, so as not only to enable the jet cap to be raised and supported above the wick, in manner to allow such wick to be inflamed, and the flame thereof to heat the said jet cap and rod, but to serve as a means of conducting heat from the jet cap into the inner tube, by which such heat may be conducted into the wick, in order to aid in vaporizing the liquid contents thereof.

No. 20,153.—C. A. GREENE, of Boston, Massachusetts.—*Improvement in Vapor Lamp Burners*.—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim a ring or collar having holes through it, turning upon the outside of a shoulder having correspond-



ing holes through it, to form a regulator for a fluid lamp, as this is an old device and cannot be made to operate successfully.

But I *claim* the combination of the hollow spur, susceptible of being turned in either direction, and having slits or apertures formed in it with the cap *d*, through which similar slits or apertures extend, as described, and for the purpose of regulating the jet or jets of flame by the turning of the said spur.

No. 20,324.—DANIEL H. CARPENTER, of New York, New York.—*Improvement in Vapor Lamp Burners*.—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the device set forth of regulating the quantity of air to be mixed with hydro-carbon vapor, consisting of the screw stop placed in the tube *a*, at such distance below the exit aperture as shall leave the requisite space for the mixing of the gases before reaching said aperture.

I also claim the described improvement in the construction of the valve *c* for the vapor passage, whereby the said passage is kept free at all times, without increasing the size thereof, substantially as set forth.

No. 20,648.—A. M. MACE, of Springfield, Massachusetts.—*Improvement in Vapor Lamp Burners*.—Patent dated June 22, 1858.—In the engravings A is a fountain for containing burning fluid. Near the burner is attached a stop or valve, G, having a packing box, F, and its seat E, and spindle D, made nearly straight where it passes through the diaphragm, to regulate the flow of liquid in minute quantities.

The inventor says: I do not claim a packing of wire cloth, cotton, or any analogous material.

Neither do I claim the use of asbestos, when used as a wicking to act by capillary attraction.

But I *claim* the use of the heating and vaporizing tube or retort charged with asbestos and fluid, in the manner and for the purpose set forth.

No. 21,239.—SOLOMON ANDREWS, of Perth Amboy, N. J.—*Improvement in Vapor Lamp Burners*.—Patent dated August 24, 1858.—As a description of this invention is too long for a place in this volume, the reader is referred to the claim and engravings.

The inventor says: I *claim*, 1st., as my invention, the combination of the wick tube, the gas chamber, and the caloric conductors in a gas lamp, as described, or its equivalent.

2d. I claim a cotton or other fibrous wick made hollow by a wire gauze tube, or its equivalent, for the uses and purposes specified.

No. 20,746.—HIRAM TODD, of Columbus, Ohio.—*Improvement in Burning Fluid Lamps*.—Patent dated June 29, 1858.—The nature of this invention consists in surrounding the wick tubes B C with a water chamber D, to the end of which is attached a safety-valve F and tube E, surrounding entirely the wick and tubes, thereby preventing any



heated metal, substance, or fluid, from coming into contact with the fluid in the main body of the lamp.

The inventor says: I do not claim the application of a water chamber around the wick tubes of lamps, to apply water to the wick to extinguish the light or any such device.

But I *claim* the arrangement of the water chamber D, with the tubes B C and wick tube I, constructed and operating as and for the purposes set forth.

I also claim the arrangement of the safety-valve F and tube E, with the wick tube I, in the manner and for the purposes specified.

No. 20,641.—ELIAS J. HALE, of Foxcroft, Me.—*Improvement in Camphine Lamps*.—Patent dated June 22, 1858.—The nature of this invention consists in an improvement whereby the solar cap D is made adjustable with respect to wick tube B, stationary in its relation to the wick C that may be within it, the adjustment being such as to cause the distance between the top of the wick tube, and the orifice in the upper part of the solar cap to be either increased or diminished to such extent as may be desirable in order to prevent the blaze on the wick from smoking.

The inventor says: I do not claim merely making a wick adjustable with respect to a solar cap.

But I *claim* an improved lamp having its wick tube made adjustable and movable with respect to its solar cap, or having the latter made adjustable with respect to the wick tube, the whole being substantially in manner and so as to operate as specified.

No. 20,748.—WILLIAM W. WADE, of Longmeadow, Mass.—*Improved Method of Fastening the Wick Tubes in Lamp Caps*.—Patent dated June 29, 1858.—The spindle B B, by which the wick is raised or depressed, is fastened by being extended from side to side of the shell through holes of suitable size made for the purpose. The wheels for raising the wick working into the tube through an aperture K K, made for the purpose, prevent the spindle from slipping out of place.

The inventor says: I *claim* the method of fastening the wick tube and spindle for raising and depressing the wick in lamp attachments, without the use of solder, in the manner described.

I claim no other part of the attachment.

No. 22,099.—IRVIN A. WILLIAMS, of Utica, N. Y.—*Locomotive Lamp Case*.—Patent dated November 16, 1858.—The nature of this invention consists in enclosing the flues of locomotive lamp cases by a combination of casings and deflecting caps for preventing downward draught.

*Claim*.—The combination of casings B and C with the chimney A, as described, the plates  $p$  and  $p^1$  alternating, and the construction and arrangement of the several parts, substantially as set forth.

No. 20,255.—HENRY M. COLLIER, of Binghamton, N. Y. & HENRY N. BAKER, of New York, N. Y.—*Improved Electric Lamp*.—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.



The inventors say: We do not claim the feeding together of the electrodes in an electric lamp by means of floats, springs or other mechanical appliances, nor the mechanical pole changer as heretofore used, but only as applied to an electric lamp in the manner described.

But we *claim* the employment in an electric lamp of an open seat *i*, contained in a stationary bridge plate *c*, or its equivalent, and receiving the electrode in such a manner as to allow the point only thereof to protrude through it the distance required, and permitting the advance of the said point so fast only as it is oxydized and reduced by the electric current, substantially as described.

We also claim the combination of the loaded tube *b* carrying the upper electrode *c*, the open seat *i*, and the mercury tube *f*, in which floats and is secured the lower electrode *c*<sup>1</sup>, substantially as described, so that while the upper tube *b* feeds the upper electrode down to the open seat as fast as it is reduced, the lower electrode *c*<sup>1</sup> is also fed up as fast as reduced and kept in its proper position with reference to the upper electrode *c*.

No. 20,373.—GEORGE RIMINGTON, of South Brooklyn, New York.—*Improvement in Lamps for Burning Coal-Oil, &c.*—Patent dated May 25, 1858.—A perforated cap in two parts, and used in connexion with two flat wick tubes placed at a suitable distance apart, is used in this lamp, in order that the flame may be supplied with a sufficient quantity of oxygen to support proper combustion without the aid of a chimney. It is especially applicable to lamps in which coal-oil is burned.

*Claim.*—The cap B formed of two parts *a b*, perforated as shown, and used in connexion with the two tubes *e e*, the several parts being arranged relatively with each other and applied to the lamp so as to operate as and for the purpose set forth.

No. 20,573.—CHARLES MCINTOSH, of Jersey City, New Jersey.—*Improvement in Lamps for Lighting Gas.*—Patent dated June 15, 1858.—The nature of this invention consists in forming a flared opening in the base or reservoir of the lantern, in such a manner and in such relation to the flame as to enable the flame to draw a stream of gas from the burner, and ignite the same by simply passing the lantern over the burner.

*Claim.*—I am aware that openings have been formed in the lower portions of lamps for producing draught and supplying air to the flame, and therefore I lay no claim to this device.

What I *claim* is constructing the lamp with a vertical or nearly vertical passage H through it, when used in connexion with a lantern, substantially as and for the purposes set forth.

No. 19,287.—ROBERT R. CROSBY, of Boston, Massachusetts.—*Improvement in Hydro-Carbon Vapor Lamps.*—Patent dated February 9, 1858.—The nature of this invention will be understood by an examination of the claim and engravings.

The inventor says: I do not claim applying a separate wick tube and wick to a main reservoir and its wick tube, such being for the



purpose of vaporizing the fluid in the wick of the main reservoir by flame generated by combustion of any of the fluid contents of the said reservoir.

But I *claim*, in a hydro-carbon vapor lamp, combining an auxiliary and separate reservoir H with the main reservoir A and its main and auxiliary wick tubes D D G, so that, while a fluid rich in carbon may be used in the main reservoir, alcohol, or a fluid having less or very little carbon, may be used in the auxiliary reservoir, and be burned on the wick thereof extending through the auxiliary wick tube.

I also claim arranging the separate auxiliary reservoir H, of the auxiliary wick, within and separate from the main reservoir, as specified.

I do not claim applying to the auxiliary burner-chamber a closing slide to rotate on the wick tubes D D and regulate the amount of air to be admitted into the said chamber for the ordinary purposes of the flame on the wick.

But I claim the arrangement and application of a flame guard K, constructed substantially as described, to the auxiliary wick-tube chamber, so as to extend and slide around the upper part of said chamber, have such chamber open beneath it, and operate to spread the heat uniformly against the under side of the vaporizing vessel E, substantially as specified.

No. 19,158.—THOMAS SHANKS, of Baltimore, Maryland.—*Lamp or Candlestick and Match-Box Combined*.—Patent dated January 19, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am well aware that match-boxes, or safes, and tinder receptacles, have been applied, connected to, and arranged with, illuminating apparatus; and also that candlesticks have been formed with depressed receptacles; consequently such attachments and formations I do not claim.

But I *claim* the construction of, and providing lamps or candlesticks with, a hollow base or pedestal part *a a a a*, said hollow base being combined and provided with a sliding self-closing drawer-like arrangement or receptacle *b b b b*, having compartments *c c c d d d*, enclosing chamber *e e e*, constructed, arranged, and operated by the springs *k k k k* and catch-rod *h h*, substantially for the purposes set forth and as described.

No. 22,311.—WILLIAM F. SHAW, of Boston, Massachusetts.—*Improvement in Lamp-Shade Supporters*.—Patent dated December 14, 1858.—In the improved construction of this lamp-shade supporter, the whole is formed of one piece of metal, the supporter being struck up into form in dies. The bottom of the cup which is thus formed, instead of being cut out, as shown by the space *f*, is stamped out, as shown in fig. 3, leaving the portions 1, 2, 3, 4, 5, 6, of it attached to the rim. The alternate strips 1, 3, 5, are bent up as shown in fig. 2, forming the upper springs; and the other strips 2 4 6 are bent down, forming lower springs, the two sets together answering the same purpose as the springs D.

*Claim*.—As a new article of manufacture, the lamp-shade supporter



C, with its upper and lower springs constructed of a single piece of metal, in the manner substantially as specified.

No. 20,283.—HORATIO N. MACOMBER, of Lynn, Massachusetts.—*Improvement in Vapor Lamps*—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware of the devices represented in letters patent of the United States dated May 10, 1844, and numbered 3,582, and therefore I do not claim the same.

But I *claim* making the ascending and descending air-passage of the lamp of a series of chambers each connected with the other, and the whole opening out of and into the reservoir of the lamp, substantially as set forth.

No. 20,386.—HORATIO BATEMAN, of Boston, Massachusetts, assignor to WILLIAM F. BATEMAN, of Harvard, Massachusetts.—*Improvement in Vapor Lamps*.—Patent dated May 25, 1858.—This invention relates to an improvement in that class of lamps in which gas is generated by heat imparted to a wick which does not come in contact with the flame, the wick being heated, for the purpose of generating the gas, by means of a spur or tongue extending into the wick.

*Claim*.—Constructing the spur or tongue *e* with a suitable eye for the insertion and retention of the wick, as set forth.

No. 20,649.—A. M. MACE, of Springfield, Massachusetts.—*Improvements in Vapor Lamps*.—Patent dated June 22, 1858.—The nature of this invention consists in providing heating and vaporizing tubes or retorts B A, used for vaporizing hydro-carbon liquids by the heat burners supplied with vapor generated within the tube or retort, with a heat-retaining cover or cap H, so connected to the retort as to retain or reflect the heat upon or around the surface opposite the flame.

The inventor says: I do not claim the use of a heat-retaining cap, connected with a retort of a particular construction, as such a patent was granted to me April 22, 1856, but generally it may be applied to any form of chamber or retort producing the same results.

Neither do I claim the elevated reservoirs, except in connexion with parts mentioned.

Neither do I now claim expanding the vaporizing tube into a chamber, as I intend applying for a separate patent for that device.

What I *claim* is: First. Combining the cap or heat-retainer H with vaporizing tubes or retorts, constructed substantially as described, when so arranged over the flame as to operate in the manner set forth.

Second. I also claim the combination of the heat-retainer H and vaporizing tube, connected substantially as described, with the elevated reservoir, the whole arranged and operating with respect to the valve C<sup>1</sup> and burner K, as set forth.

No. 20,729.—WILLIAM H. RACEY, of St. Augustine, Florida.—*Improvements in Vapor Lamps*.—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The employment or use of a tube H and burner K arranged



with a lamp or fountain, as shown, or in any way, so that the flame which is fed direct from the burning material within the fountain may serve as gas-generator to supply the illuminating flame M that issues from burner K, and this I claim irrespective of any particular means which may be employed for supplying the illuminating flame with oxygen.

No. 20,952.—NICHOLAS MASON, of Chelsea, Massachusetts.—*Improvement in Vapor Burning Lamps*.—Patent dated July 20, 1858.—The essential features of this invention are a cylindrical sheath *k*, whereby the lighting of the lamp is facilitated, and the safety tube whereby the gas in generated in the lamp itself is conducted directly, and without obstruction, to the point of combustion, thus obviating all danger of its collection and explosion within the lamp.

The inventor says: First. I *claim* the two holes *q q* in the wick tube, for the purposes set forth.

Second. I claim my cylindrical sheath, arranged and operating substantially in the manner and for the purposes set forth and described.

Third. I do not claim cutting off the gas by means of rolling valves, as this is common in steam engines, and in gas and water cocks and other lamps.

But I claim the double row or series of rolling valves contained within the mouth-piece of the burner, arranged and operating in combination with each other, and with the throat-piece of the wick tube, substantially in the manner set forth and described.

No. 21,890.—JAMES Y. LESLIE, of Brooklyn, N. Y.—*Improvement in Lamp Wicks*.—Patent dated October 26, 1858.—This improved wick is made by enchaining a series of loops in a single yarn. A loop is first formed, as indicated by 1, and then a second, indicated by 2, is formed without being taken through the first. The third one formed is taken through the first, the fourth through the second, the fifth through the third, and so on indefinitely, as illustrated in fig. 11, where the loops are numbered in their order of formation.

*Claim*.—A lamp wick composed of a single yarn as double looped, as shown and described.

No. 20,785.—JOHN FLEMING, of Pittsburg, Pennsylvania.—*Improved Method of Attaching Lamps to Lanterns*.—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

*Claim*.—The combination of the spring D with the clips E E and the ring F, for the purpose of effecting the attachment and detachment at the lamp of a lantern, all substantially in the manner described and shown.

No. 19,207.—JACOB H. REIGHARD, of Birmingham, Pennsylvania.—*Improvement in Lanterns*.—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—Attaching the top and bottom trimmings of lanterns to the globe by means of lugs, fitting on a bead around the upper and lower neck of the glass globe, so that they may be more readily



attached or removed, or a new globe inserted when necessary, in the manner described.

No. 19,897 —JACOB H. REIGHARD, of Birmingham, Pennsylvania, assignor to Himself, JOHN BAIRD, and DAVID CHALLINER, of said Birmingham.—*Improvement in Lanterns*.—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the coating of the external surface of a portion of the glass globe of lanterns with silver or other metallic substances, for the purpose of giving a reflecting surface.

But I *claim* making a circular convex projection in the side of the globe of the lantern cast or moulded in one piece with the globe, (which is to be silvered externally as a reflector,) the edge of which circular projection is slightly raised from the surrounding surface of the globe, so as to permit of the convenient attachment of a cap or covering to protect the silvered surface of the reflector from injury.

No. 19,845.—A. H. GOLDEN, of Lafayette, Indiana.—*Improvement in Lanterns*.—Patent dated April 6, 1858.—This lantern is so attached to the person carrying it, that he has perfect control of both arms and hands, and, at the same time, has full benefit of the light.

*Claim*.—The bow or bail B, pivoted to the upper part of the lantern A, and provided with the plate or shield C, and clamp constructed as shown, whereby the lantern may be readily secured to the arm of the person desiring its use, and the person have the control of both arm and hands, and, at the same time, have the full benefit of the light.

No. 21,521.—STILLMAN C. SPAULDING, of Rutland, Wisconsin.—*Improvement in Lanterns*.—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that patents have been already granted for attaching guards to lanterns without solder, and also for constructing the corner-pieces so as to hold the glass sides without solder, and I disclaim these as any part of my invention.

But I *claim*, first, constructing a lantern by folding the edges of the several parts over wire frames, as described, so that it can be compressed and packed in a small space on removing the glass sides, and in the way set forth, and so that solder is not needed to secure the pieces composing the top and bottom.

Second. The use of a coiled wire in the manner mentioned, to retain the glass sides in their place.

Third. Attaching the lamp of a lantern to a hinged bottom, and connecting the latter to a spring in the top, so as to keep the lamp securely in its place when in ordinary use, yet admit of ready access to it, as described.

No. 21,485.—JOSEPH C. CARY, of New York, N. Y.—*Improvement in Lantern Attachment to Caps*.—Patent dated September 14, 1858.—This invention consists in a peculiar manner of constructing and attaching a lantern to an elastic or adjustable skull-cap, whereby the



lantern is perfectly adapted to the cap, and allowed to burn equally as well as if held by the hand, and the cap made to fit varying sized heads, the whole forming a perfect device for railroad conductors, miners, and others who, at certain times, require a light and the free use of both hands.

*Claim.*—The lantern C constructed as shown, to wit: the fountain C and lamp D, connected by the tube *f*, and enclosed within the case *d*<sup>1</sup>, which is provided with the handle or bail, and straps *i j* for the purpose of being attached to the cap A.

No. 21,209.—MAX MILLER, of Brooklyn, N. Y.—*Improved Lantern for Burning Coal Oil.*—Patent dated August 17, 1858.—The object of this invention is to dispense with the usual draught chimney which has been hitherto necessarily used in lanterns for burning coal oil, by so constructing and arranging certain parts that the usual glass globe or cylinder, which has hitherto only served to protect the flame, serves the double purpose of protector and draught-creator, whereby a more even and steady flame than usual will be obtained.

*Claim.*—The inverted cup H, provided with the perforated band *m*, and placed over the lamp D, the band *m* encompassing the wick-tube cap *o*, in combination with the glass cylinder C and the tube G, or its equivalent, the whole being arranged substantially as and for the purpose set forth.

No. 20,302.—ADOLPH ROESLER AND CHARLES FREY, of Warsaw, Ill.—*Improved Self-Lighting and Extinguishing Lanterns.*—Patent dated May 18, 1858.—This invention consists in providing the lantern with a box filled with matches, a slider fitted in the lower end of said box, and two arms and springs, and a rod provided with a knob, that extends above the top of the lantern.

The inventors say: We *claim*, first, the box C, provided with spring *d*, as shown, plates L L, springs *i i*, and arms E E.

Second. We do not claim the slide *f*, separately.

But we *claim* the slide F, the rods *k k* and *g*, in combination with arms E E, substantially arranged as described.

Third. We do not claim the extinguisher *p*, separately.

But we *claim* the supporters R R, plates T and U, catch *s*, rod *q*, in combination with the extinguisher *p*, the whole being arranged as described, and for the purposes specified.

No. 19,044.—ALBERT C. RICHARD, of Newtown, Conn.—*Improved Attachment for Lighting Lanterns.*—Patent dated January 5, 1858.—This invention consists in having a match socket *c* attached to a spring E, which is secured to the inner side of the door B, and retained or held back by the side of the door by a catch.

*Claim.*—The spring E, provided with the sockets *c*, and the rod F, provided with the catch *g*, in combination with the rod *i* and corrugated plate *j*, the whole arranged and operated in the manner and for the purpose set forth.

No. 20,404.—WILLIAM P. CHADWICK, of Edgartown, Mass.—*Improved Mantel Bar.*—Patent dated June 1, 1858.—The sloping bot-



tom *b* has applied to it an adjustable smoke chute or guard *B*, which consists of a plate *d* and two triangular projections or plates *e e*, extended downward from such plate *d*, and near its two ends. The ends extend under lips *f f*, projecting from the mantel bar *A*, the lips serving to connect the chute and the bar in a manner to allow the chute to be slid along.

*Claim.*—Making the mantel bar *A* with an inclined back or bottom, as explained, and combining therewith a sliding or adjustable smoke chute, to operate therewith substantially in the manner as specified.

No. 21,271.—E. GRAVES OTIS, of Yonkers, N. Y.—*Improvement in Ovens.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—First. The construction of ovens, with the floor upon which the baking takes place running spirally around the inside of the oven, substantially as set forth.

Second. The rotary cylinder *D*, constructed, arranged, and operating, substantially as and for the purposes set forth.

Third. Placing the spiral chamber in which the baking is performed in communication with the hot air chamber *W* above the fire chamber, by means of the chamber *G* and the openings controlled by the dampers *h*, for the purpose of regulating the temperature in the several portions of the said spiral chambers, substantially as set forth.

No. 21,147.—WILLIAM PETTET, of New York, N. Y.—*Improvement in Bake Ovens.*—Patent dated August 10, 1858.—The nature of this invention consists in so arranging and constructing an oven that it may be heated by an exterior furnace that will also heat the apartment in which it is placed, or by one arranged in such a manner that its heat will be almost imperceptible in the room. Also in so arranging and constructing the lining of the oven that it may be entirely removed to give free access to the flues in every part for the purpose of cleaning, to insure the perfect circulation of the heat from the furnace.

The inventor says: I *claim*, first, the arrangement and construction of an oven with two furnaces, the one being located on the exterior and the other on the interior of the oven, each communicating with the same series of flues so that either one may be used at pleasure, whereby the heat may be retained within the oven or diffused through the apartment, substantially as set forth.

Second. I claim so constructing the interior of the described oven and its flues that the entire lining may be removed, for the purpose of clearing the flues, and replaced, substantially as described.

No. 21,620.—WILLIAM R. NEVINS and JOSEPH J. YATES, of New York, N. Y.—*Improvement in Bakers' Ovens.*—Patent dated September 28, 1858.—Patented in England September 28, 1858.—The nature of this improvement consists in arranging the endless apron for the conveyance of the biscuit or other articles to be baked within a horizontal chamber or oven having a metallic top and bottom above and below, which are horizontal flues, communicating at their ends for the passage of the heat, &c., from the furnaces below, and dividing the said lower flues



and furnaces by a transverse bridge wall in such a manner as to enable the heat to be conveyed below the oven in both directions from the furnaces in the centre to the ends, and thence again through the upper flue to the centre exit pipe or chimney, thereby imparting to the upper and lower plates of the oven an equable degree of heat during the intermittent progressive motion of the cutting machine apron, to which said apron may be geared if desired, and preventing ashes, dust, smoke, and other extraneous and injurious matters coming in contact with the biscuit or other bread stuff being baked.

*Claim.*—The combination and arrangement of the endless apron H<sup>1</sup> and hexagonal rollers H, to which an intermittent progressive motion corresponding with the motion of the apron of the cracker or biscuit-cutting machine is given, horizontal flues K K<sup>1</sup> and bridge-wall B, between the lower flues K and furnaces R, substantially in the relation to each other described, and for the purpose set forth.

No. 21,610.—HAMILTON LYON, of Cincinnati, Ohio.—*Improved Method of Heating Ovens by Steam.*—Patent dated September 28, 1858.—This invention relates chiefly to the preservation of a constant, equable, and controllable heat in an oven, and consists in certain modes of availing and applying super-heated steam or air circulating within an enclosing shell or jacket.

*Claim.*—The combination of the pipes F E G and H, chambers B and C and exhaust I or their equivalents, arranged and employed substantially in the manner and for the purposes set forth.

No. 19,591.—THOMAS T. TASKER, of Philadelphia, Pa.—*Improvement in Hot Water Radiators.*—Patent dated March 9, 1858.—A represents a single series of tubes of the radiator composed of a number of tubes  $\alpha$ , joined together and having free communication with each other by means of the tubes C D and the end of the terminal sections E. These sections are fitted to each other by the shoulder and flange joints F F and are bound firmly together by the “through-bolt” H, which passes through all the sections, and tightened by the nuts K.

The inventor says: I am aware that sections of tubes with and without flange and shoulder joints have been secured together by through-bolts, and I lay no claim to this mode of securing parts of a tube together.

But I *claim* the mode of securing together the several divisions or systems of radiator tubes, as set forth, the same consisting in the employment of the four terminal sections E to each division, the whole being held together by the through-bolts H, as set forth, thereby affording great facility in setting up the radiators and in taking them apart.

No. 22,289.—JOHN H. HOLT and JOSIAH H. GEROULD, of Chicago, Ill.—*Improvement in Steam Radiators.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

*Claim.*—The combination of the wire-gauze burner B and its vapor hood D, applied to the self-acting boiler C, above described, connected,



as described, with the steam condensing cylinder I and its reservoir J, air-cocks and safety and vacuum valves and its tubes and radiators M, with their ends open in the apartment to be heated, and all of which are particularly described and governed by the gas regulator H, as described; which combination produces a new and improved self-acting and self-regulating apparatus for raising the temperature of any given apartment in which it may be set up by radiation from surfaces heated by condensation of steam generated by the flame of combustible gas.

No. 20,132.—CHARLES WILLIAMS, of Brooklyn, N. Y., assignor to Himself and CHARLES J. SHEPERD, of said Brooklyn.—*Syphonic Radiator*.—Patent dated April 27, 1858.—This invention consists in the use of an inverted syphon, composed of a descending and ascending limb so proportioned to each other that the superior force of the air in the ascending limb, or limbs, shall cause a downward circulation through the descending limb.

The inventor says: I do not claim a hot air chamber or retort placed in a furnace over the fire and supplied with air by a pipe, or pipes, placed nearly horizontal, as such have before been used. Neither do I claim inducing a downward circulation of the products of combustion, as this has heretofore been used, both in the flues of chimneys, furnaces, &c.

But I *claim* the syphonic circulating and radiating pipes formed of two or more vertical or nearly vertical limbs, attached at their upper ends to the shell or casing of the furnace, and connected at their lower ends to each other, and operating substantially as and for the purposes specified.

No. 20,064.—A. HENDRICKS, of Morisania, N. Y.—*Improved Combination Cooking Range and Gas Generator*.—Patent dated April 27, 1858.—This invention consists in an arrangement embracing a cooking range, which has two fire chambers, two draught flues, and suitable dampers, when used in connexion with a gas retort, which opens on the outside of the room in which the range is located. The fire chamber, which heats the retort, can be used at stated periods in order to generate gas and at the same time heat the range, and the other fire chamber can be used daily for simply heating the range, and without acting on the retort.

*Claim*.—The arrangement embracing a cooking range, which has two fire chambers B B<sup>1</sup>, two draught flues D D<sup>1</sup>, and appropriate dampers, when used in connexion with a gas retort opening on the outside of the room, substantially as and for the purposes set forth.

No. 21,608.—CHARLES KANE, of New York, N. Y.—*Improvement in Combined Cooking Range and Heating Apparatus*.—Patent dated September 28, 1858.—This range is constructed with a fire grate in the centre of the front E, with ovens D D D, on each side of it. The direct draught *a a a*, from the fire box, or grate, is so arranged that it may be closed by dampers. The direct draught being closed the heat passes over the top *b b b*, of the ovens in the direction of the arrows, thence down the outsides of the ovens through flues *c c c*,



between the ovens and the walls of the range, thence through flues or spaces *d d d*, under the bottoms of the ovens; thence down and under the ovens in flues or spaces *e e e*, immediately under the last named flues to the back of the range, and thence into the smoke pipe or chimney *g g g*.

*Claim.*—The arrangement of an air chamber C, under a whole range, with a flue or flues B B, connecting it with the hot air chamber A, together with the double flues *d d d d*, *e e e e*, in double tiers between the air chamber C, and the bottom of the ovens D D, through and in which last mentioned flues the combustible gases and smoke circulate before reaching the smoke flues *g g*, the whole constructed and operating substantially as and for the purposes above set forth.

No. 22,120.—JOSHUA HARRISON, of New York, N. Y.—*Improvement in Cooking Ranges.*—Patent dated November 23, 1858.—The nature of this invention consists in so constructing and arranging of the range that nearly the whole heat from the fire shall be retained in the range, thus rendering a much smaller fire sufficient to perform a given amount of work or cooking; and in so constructing and proportioning the top plate of the range that vessels can be kept constantly boiling and cooling without soiling or injuring them.

The inventor says: I *claim* the arrangement and combination of the flues *c* and F with the breaks or parts G, 1, and 2, substantially as described, and the damper *f*, in connexion with the main flues F F, directly underneath the fire, for the uses and purposes set forth.

I claim also the arrangement of the broiling grates H H, with the flue *c*, for the purpose of applying the heat of such fires directly to and making it effective in heating that part of the range most distant from the principal fire.

I claim also the construction and arrangement of the top plate D, as described, by which the front and back rails *o o*, are made a part of the body of the range, while the central part of such plate is made in separate sections, the back rail being also a base or foundation for the mason work, as set forth.

No. 19,368.—JAMES INGRAM, of New York, N. Y.—*Improvement in Water Backs for Ranges.*—Patent dated February 16, 1858.—The nature of this invention will be understood from the claim and engravings.

The inventor says: I *claim* arranging the water back and parts connected with and supporting the same in substantially the manner specified, so as to allow the said water back to be moved away from the fire or be brought in contact with the same without disturbing the pipes and connexions, substantially as and for the purposes specified; and in combination with said movable water back I claim the lever *k* and weight 9, to move the intervening soap-stone or fire-brick, substantially as specified.

No. 21,702.—JOSEPH SCHMADEL, of Dayton, Ohio.—*Improvement in Cooking Boilers for Ranges and Stoves.*—Patent dated October 5, 1858.—This invention consists in having the lower part of the boiler,



or kettle, or other vessel, provided with a series of tubes placed around the vessel at its inner side and communicating with the fire when the vessel is placed on the stove or range, the upper ends of the tubes communicating with a chamber which encompasses the upper part of the vessel, said chamber being connected with the flue or pipe, and formed by having the upper part of the vessel constructed with double sides.

*Claim.*—The new manufacture of cooking boiler for stoves and ranges described, to wit: a cooking boiler provided with perpendicular tubes or flues around its sides, from the bottom upward, and opening into a horizontal flue or chamber around the top of the boiler for the blaze and smoke to pass through, substantially as described.

No. 20,589.—WILLIAM F. SHAW, of Boston, Massachusetts.—*Improved Light Reflector.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

*Claim.*—A foraminous reflector or lamp shade made of conducting or slowly conducting material, constructed substantially in manner and so as to operate as described, both as to the reflection of light and the dispersion of heat and light.

No. 20,106.—EDWARD A. TUTTLE, of Brooklyn, New York.—*Improvement in Warm Air Registers and Ventilators.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim any feature seen in the device of W. G. Cook, 1848, S. P. Munson, 1853, or the patent of George Pollock, 1847.

But I *claim* an improved article of manufacture, a warm air register made as herein set forth, viz: the frame B B, having lugs *ll*, and recesses *ff*, and the end pieces C, provided with lugs *e*<sup>1</sup>, for the reception of screws *k*, the ledge or step and openings *p*<sup>1</sup> *p*<sup>1</sup> *p*<sup>1</sup> for the leaves, all substantially as shown, when combined with a mechanism for operating the leaves.

No. 21,416.—THEODORE HEERMAN, of Mitchellville, Tennessee.—*Improvement in Coffee-Roasters.*—Patent dated September 7, 1858.—The nature of this invention consists in the employment of two reversely inclined plates which have a space existing between their approximating ends on the inner circumference of a revolving coffee-roasting cylinder, which has its inner surface made otherwise plain, or furnished with a straight lifting shelf.

*Claim.*—The employment of two reversely inclined concentrating plates, which have a space existing between their approximating ends on the inner circumference of a revolving coffee-roasting cylinder, substantially as and for the purposes set forth.

No. 21,845.—CHARLES JOHN CHRISTIAN PETERSEN, of Davenport, Iowa.—*Improvement in Coffee Roasters.*—Patent dated October 19, 1858.—The nature of this invention consists: 1st. In supplying the coffee drum with a damper *e e*, whereby the heat is at pleasure diffused



over the surface of the drum in the process of roasting the coffee, or is excluded from it. 2d. In furnishing the slide door of the coffee drum *g* with a self-adjusting lock *h*.

The inventor says: I *claim* the application of a damper constructed and operating substantially as set forth to the drum of a coffee-roaster.

I also claim the spring catch *h* and block *n*, in connexion with the sliding door of the drum, constructed and operating substantially as described.

No. 21,387.—SAMUEL TOWER, of Grand Rapids, Michigan.—*Improved Apparatus for Roasting Coffee*.—Patent dated August 31, 1858.—This improvement consists in having a portion of each of the journals, or axes of the contrivance, attached to each sphere, so that when the spheres are closed the axes will be completed and the parts will be locked together.

*Claim*.—Having a portion of each of the journals or axes *B C* attached to each sphere or shell *a b* and otherwise arranged and combined as set forth, so that when the spheres or shells are closed, the axes or journals will be completed, and the shells will be locked, all as and for the purposes described.

No. 21,119.—JOHN B. CORNELL, of New York, N. Y.—*Improved Safety Guard for Safe Doors*.—Patent dated at August 10, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* arranging a safety guard within the door of an iron safe in such a manner with relation to the lock or locks, and the fastening bolts which are combined with said door, that the act of forcibly displacing the said lock or locks from its or their proper position on a locked door will cause the said safety guard to be thrown into such a position that it will securely hold the said fastening bolts in an extended position from the moment that the lock bolts cease to exert a retaining action on the said fastening bolts, all substantially as set forth.

No. 19,111.—JOHN B. CREEMER, of New York, N. Y., assignor to Himself and S. DWIGHT HUMPHREY, of New York, N. Y.—*Improved Match Safe*.—Patent dated January 12, 1858.—The nature of this invention consists in a grooved cylinder at the bottom of a closed hopper, in connexion with an inclined plate or slide, in such a manner that on turning the said cylinder will be delivered, one at a time, on to the incline and slide down the same, ready to be picked up and lighted.

*Claim*.—The grooved cylinder *b*, in combination with the hopper *C* and inclined slide *3*, to deliver one match at a time, substantially as specified.

No. 20,989.—IRA L. CADY, of New York, N. Y.—*Improvement in Plates for Burglar-proof Safes*.—Patent dated July 27, 1858.—The nature of this invention consists in forming a burglar-proof plate, by the combination of a stratum of molten iron with one or two per-



forated plates made of wrought iron, to be used in the construction of safes, &c.

*Claim.*—Forming a burglar-proof combination plate by the union of a stratum of molten iron with one or two perforated face plates *a c*, of wrought iron, substantially in the manner represented and described.

No. 19,923.—JOHN T. GARLICK, of New York, N. Y.—*Improved Water and Fire-Proof Safe*.—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim making a safe either fire-proof or water-tight, nor making it sufficiently buoyant to float in the water in case of necessity.

But I *claim*, first, combining a series of air cells or spaces with a filling of non-conducting material, in a safe having a door or doors closing water-tight to render the same sufficiently buoyant to float on the water, and also to resist the action of heat and prevent the heat communicating to the articles stored in the safe, in the manner set forth.

Second. The combination of the safe, constructed and arranged as described, with the loose bed or bottom piece *H*, as and for the purposes set forth.

No. 21,405.—LOUIS D. BARTLETT, of Boston, Massachusetts.—*Improvement in Coal or Ashes Sifters*.—Patent dated September 7, 1858. The object of this invention is to construct the covers of vessels used as receptacles for ashes so that when sifting cinders in a common circular coal seive, of the kind and size usually sold, it can be used in such a manner as will prevent the escape of dust and allow the ashes to pass at once into the vessel without further handling.

*Claim.*—The inventor says: I do not claim using a circular seive on top and fitting into the vessel, to be rotated back and forth, for that is old and well known.

But I *claim* using the annular ring *A*, and the cover *B*, in combination with the seive, substantially as described.

No. 20,909.—WILLIAM WEBSTER, of Jefferson county, Washington Territory.—*Improved Smoke Stack for Steam Vessels*.—Patent dated July 13, 1858.—The nature of this invention consists in the arrangement whereby is increased the draught while diminishing the height of smoke stacks for steam vessels; keep the outer shell cool; exclude rain; and divert the heat and cinders from the masts, sails, and rigging.

*Claim.*—First. The arrangement of two or more pipes *D D D*, &c., within an outer shell *B*, as described.

Second. The application to a double shell smoke stack of the registers *L L*, &c., as and for the purpose described.

No. 19,240.—RUFUS DAWES, of Washington, D. C.—*Improvement in Stoves*.—Patent dated February 2, 1858.—The nature of this invention consists in so constructing the burner (which consists



of grates or cylinders, the one within the other) that the coal or other fuel shall be placed between concentric circles, or between similarly disposed boundaries of other forms, made of iron, or other suitable material, so that there may be an abundant supply of oxygen around and within the fuel, the two currents of air meeting and concentrating by means of the cylinder *b*.

The inventor says: I *claim* the combination of the outer bars *e* and the inner bars *e*<sup>1</sup>, arranged so as to admit an air passage *g*, through the fuel, and an air passage *k*<sup>1</sup>, between the outer bars and the casing *b*, for the purpose of supplying the inner and outer surfaces of the fuel with air, by which arrangement the combustion of smoke is effected.

No. 19,796.—SILAS T. SAVAGE, of Albany, New York.—*Improvement in Stoves*.—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that stoves have been constructed with grates open all around, or basket-wise, so as to use the radiant heat from the back of the fire for roasting or other cooking, but that arrangement does not effect either one of the objects of my invention as stated, and I therefore disclaim any such construction or arrangement of grate and stove.

But I *claim* in furnaces or stoves the employment of a receptacle for the fuel, closed at front and partially at bottom, with open grate bars for a part of its bottom and for the rear, opening into an air or draught chamber between them and the back plate of the fire-chamber, substantially as described in the specification and for the purposes set forth.

No. 20,274.—JOSEPH C. HENDERSON, of Albany, New York.—*Improvement in Stoves*.—Patent dated May 18, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

*Claim*.—The chamber *G*, contracted at the top so as to produce and maintain while in action a plenum within the combustion chamber when used in combination with the exterior chamber and connected by partition *D D*, as described, for the purpose of preventing the escape of the volatile combustible from the combustion chamber before its combustion is consummated.

No. 20,389.—CHARLES HOOFFSTATTER, of Rome, New York, assignor to JOSEPH FIRMAN, of said Rome.—*Improvement in Stoves*.—Patent dated May 25, 1858.—This invention consists in constructing and so arranging the stove as to bring the heat to bear mainly on the ovens, by causing it to pass around, over, and under them previous to its reaching the upper compartment or escaping up the chimney.

*Claim*.—The flues *H H*<sup>1</sup> and *H*<sup>2</sup> and partition *J J*<sup>1</sup>, in connexion with the ovens *I* and *I*<sup>1</sup>, when the whole are arranged in relation to each other in the manner as and for the purposes set forth.

No. 20,466.—J. S. BROWN, of Washington, D. C., assignor to Himself and JOSEPH KENT, of Baltimore, Md.—*Improvement in Stoves*.—Patent dated June 1, 1858.—The nature of this invention consists in



utilizing a portion of the heat escaping through the smoke pipe D by heating therewith the draught of air supplied to the burning fuel to support the combustion thereof. This improvement may be applied to stoves and furnaces of all kinds. Instead of having the draught pipe C within the smoke pipe D, the latter may be within the former.

The inventor says: I do not claim simply heating the draught air before it reaches the fire chamber.

Nor do I claim heating the draught air by contact with a smoke passage situated within the stove, the application of my invention being only to a smoke passage situated outside of the stove; that is, to what is understood by the term smoke pipe.

Therefore I *claim* introducing the air which supports combustion of the fuel in the stove, through, around, or otherwise in contact with the smoke pipe, whereby a portion of the heat escaping said smoke is utilized in improving the combustion of fuel.

I also claim the valve I, arranged and operating in combination with the draught pipe c, substantially as specified.

No. 21,103.—JOSEPH H. WILKINSON, of Concord, New Hampshire.—*Improvement in Stoves*.—Patent dated August 3, 1858.—A is the outer casting or body of the stove, surrounding a flame chamber or fire pot; B is the base of the stove formed of two plates about four inches apart, having two vertical plates running from C to D. By this arrangement the heat is thrown to the front of the stove; thence through the centre to exit pipe E; thus warming the whole bottom of the stove.

The inventor says: I do not claim a ventilating stove or a stove for burning the gases by admitting oxygen.

What I claim is, first, the arrangement of pipe K within pipe E and damper L, constructed and operating as and for the purpose described.

Second. I claim inserting the air chambers J J, constructed as described, in the linings of the fire-pot for the purpose set forth.

Third. I claim the holes *m m*, in connexion with the bed plate O, provided with the arch piece S, or their equivalents, for the purposes substantially as set forth.

No. 21,084.—ANDREW RALSTON, of West Middletown, Pennsylvania.—*Improvement in Stoves*.—Patent dated August 3, 1858.—The nature of this invention consists in an arrangement for regulating and throwing the draught to either side of the stove, and for carrying the heat a number of times around the cooking vessels; and also in an arrangement of the chambers 1 and B, and the regulating valves *e* of the fan on the collar of the stove where the pipe is usually attached.

The inventor says: I *claim*, first, the arrangement of the side chambers 1, the centre chamber B, and the regulating valves *e* of the fan on the collar of the stove where the pipe is usually attached, as described and set forth.

Second. The arrangement of the curvated bearing *w*, the opening 4, the cam ratchet *g*, the ratchet pawl *f*, the damper *p*, with its three journals, and the division plate *o*<sup>1</sup>, as described and for the purpose set forth.



Third. The arrangement of the plates  $m^1$  and  $m^2$ , with their division pieces  $x$ , and the openings 5, and the large openings for the cooking vessels, as described, and for the purpose set forth.

No. 21,191.—CORNELIUS O. FOLEY, of Troy, New York.—*Improvement in Stoves*.—Patent dated August 17, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, 1st. The arrangement within the outer casing of the stove of the chambers G D, descending and ascending flues H H<sup>1</sup> J J<sup>1</sup>, and exit pipe C, with the open front combustion chamber B, provided with the opening F, as described, whereby what is known as the “Franklin stove” is made a good radiator without materially impeding its draught, as set forth.

And I also claim the division plates E furnished with the opening F, and constructed and arranged in combination with the chambers D D, flues H H<sup>1</sup> J J<sup>1</sup>, smoke pipe C, and fire chamber B in the stove, substantially as and for the purposes set forth.

No. 21,446.—SILAS T. SAVAGE, of Albany, New York.—*Improvement in Stoves*.—Patent dated September 7, 1858.—The engravings represent a cylindrical hall or parlor stove externally of the form in use at the present time, the external shell or cylinder being represented as having the half next the spectator and a portion of the hearth and side of the ash pan removed, in order to show the internal structure. The grate with its dome is shown in perspective.

*Claim*.—The combination of an open cylindrical or basket grate, with a dome, or a cone-shaped cover placed within an outer chamber, having a register for the admission and regulation of a current of air between the grate and the walls of said chamber, arranged near the bottom of the chamber, substantially as the same is described and for the purposes set forth in the specification.

No. 21,938.—J. H. BUCHANAN, of New Concord, New Hampshire.—*Improvement in Stoves*.—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The arrangement, consisting of the concave bed or ash pit A, of larger diameter than the grate, and constructed with supporting lugs or ledges  $a a$ , semi-spherical open top grate or fire chamber C  $b b$ , with draught space  $m$  existing between it and the ash pit or bed A, and flaring stove-pipe D appearing as a continuation of the grate, and furnished with a transverse feed and draught door F, and arranged above the fire grate, and made adjustable in a vertical line with the fire grate on a vertical standard, all for the purposes stated and substantially as set forth.

No. 22,250.—CHARLES HARTWELL, of Boston, Massachusetts.—*Improvement in Stoves*.—Patent dated December 7, 1858.—This invention is a portable cooking apparatus, so provided that it may, if desired, be put in communication with the external air, so that it may be made to ventilate the apartment or the building.

The inventor says: I *claim*, in connexion with the evaporating



vessel E, or its equivalent, for supplying vapor to the air, the described arrangement of the parts of my stove, consisting of the fire pot A, lower chamber B<sup>1</sup> D<sup>1</sup>, receiving pipe *d*, tubes *c*, and oven, or other cooking vessel F, arranged in relation to each other, substantially in the manner and for the purposes described.

And, in connexion with the above, I also claim the aperture *a* leading from the interior of the case B to the ash pit, in the manner and for the purposes described.

No. 22,277.—JOHN S. CLARK and WASHINGTON HARRIS, of Philadelphia, Pennsylvania.—*Improvement in Stoves*.—Patent dated December 14, 1858.—This invention consists in combining with adjustable air passages through the shell of the stove at the upper end of the interior cylinder or lining of the fire surface a section of a hollow annulus, with perforations for allowing the heated air to pass through and among the products of combustion, the hollow annulus resting upon the top of the lining by its one edge, the other edge being against the shell of the stove, and thus forming a chamber.

*Claim*.—Combining with the adjustable air passages at the top of the interior cylinder or lining the section of the hollow annulus, with perforations, its lower edge resting upon the inner edge of the lining, and its upper edge against the shell plate, and thus forming an air chamber, as set forth.

No. 22,276.—JOHN S. CLARK, of Philadelphia, Pennsylvania.—*Improvement in Stoves*.—Patent dated December 14, 1858.—This invention consists in combining with adjustable air passages through the shell of the stove at the upper end of the interior cylinder or lining of the fire surface a section of a hollow annulus, with perforations for allowing the heated air to pass through and among the products of combustion, the hollow annulus resting upon the top of the lining by its one edge, the other edge being against the shell of the stove, and thus forming a chamber.

*Claim*.—The movable plate *d*, as it is arranged with and has relation to the grate, the usual back plate *f*, the air passages *i i*, and the passage for the products of combustion, as set forth.

No. 22,342.—R. W. BELSON, of Philadelphia, Pa.—*Improvement in Stoves*.—Patent dated December 21, 1858.—Around the base of the fire pot is constructed an annular chamber *a*, having a vertical partition *b* and an opening *c* on one side of *b*, communicating with the air of the room; on the other side of *b* is another opening *d*, communicating with the vertical passage *e* made in the outside of the fire pot. This passage communicates with the annular chamber *f* surrounding the top of the fire pot, this chamber *f* being pierced on its inner side with numerous small holes *g*, through which the heated air is to pass to impinge upon the gases arising from the fuel. Leading upward from the passage *e* is a pipe *h*, which is to convey a stream of hot air directly to the escape pipe *i*.

The inventor says: I am aware that an annular chamber with air



jets above a fire for consuming gases is an old and well known device, and I therefore limit my *claim* to the improvement described, to wit:

The combination of the air chamber *a* surrounding the base of the fire pot with the annular chamber *f* at the upper part of the fire pot, as described.

I also claim the jet pipe *h* in combination with the annular chamber *a* and escape pipe *i*, as described.

I also claim the adjustable heater *r*, constructed, arranged, and operating over the fire, substantially as described.

No. 22,392.—DAVID WELLS, of Lowell, Massachusetts.—*Improvement in Stoves*.—Patent dated December 21, 1858.—This invention consists in a peculiar arrangement of flues, an air heating chamber, and smoke chamber, whereby the combustible portion of the products of combustion is brought in contact with a suitable portion of heated atmospheric air, and ignited in a chamber separate from the fire chamber, but by the heat or fire therefrom.

*Claim*.—The arrangement of the flues  $D^1 D^1$ , smoke chamber E, air-heating chamber G, and fire chamber B, the latter communicating with the smoke chamber by means of the perforations *b*, and the smoke chamber communicating with the air-heating chamber by perforations *a*, substantially as and for the purpose set forth.

No. 22,416.—NELSON EDWARDS, of Chittenden county, Vermont.—*Improvement in Stoves*.—Patent dated December 28, 1858.—“I,” in the figure 3, shows a sectional view of hydro-atmospheric jet, whose office is to dispense in small jets, through orifices in its surfaces, combined atmospheric air and watery vapor among the exsiccated gasses that rise into the gas chamber; the gas chamber is that part of the furnace above the smoke flue and fuel port in which the apparatus is situated, and thus by furnishing a limited and constant supply of watery vapor to the gasses, convert them into hydro-carbons, and by a rich supply of oxygen from the watery vapor, and also from the air, enable them to burn up and yield an amount of heat instead of passing away by the draft unconsumed.

The inventor says: I *claim* the application to a stove of an improved combined hydro-atmospheric jet and gas chamber.

I also claim the stove containing coiled smoke pipe in its combination with the plurality of stove walls, substantially as described.

No. 21,445.—SILAS T. SAVAGE, of Albany, New York.—*Improvement in Coal Stoves*.—Patent dated September 7, 1858.—A A A A is the magazine for fuel, A A B B D the fire chamber, G the grate, C the ash pit. The fire chamber projects back of the main body of the stove and the flues or radiators R R rise up above the projection and enter into the upper chambers of the stove E, carrying thither the products of combustion, whence they pass out by the pipe H. The supply of fuel is put in through the top door I and the door K below it. The draught is supplied from the ash pit C and from the upper and lower registers M and N, the lower register being ordinarily



used, but whenever it is desired to increase the fire the upper one is used which brings a larger amount of fuel in the line of the draught of air.

*Claim.*—The combination of the magazine, radiators, and the air chamber at the base of the radiators, as arranged in reference to and with each other, substantially as set forth and described in the specification.

No. 21,731 —JOSEPH M. BABCOCK, of Albany, New York.—*Improved Hot Air Cook Stove.*—Patent dated October 12, 1858.—The nature of this invention consists in the arrangement of the perforated side plates, the double bottom, and the elevated oven.

The oven is made double except at the ends, and the hot air which rises from the double top passes around the oven and passes into the smoke pipe. The flue around the oven is stopped by a plate on the back side near its exit, in order that the air may be made to pass around at all times in one direction. This stove is provided with two side plates A A<sup>1</sup>, the inner plate being solid.

The inventor says: I am aware that perforated side plates are not new, and also that elevated ovens are not new, and also that double top plates have been used, with apertures communicating with the fire.

I am also aware that hot air has been used and passed around the oven by Silas T. Savage, for the purpose of cooking; hence I do not claim any of these in this application.

Neither do I claim the form and construction of the oven.

But I *claim* the combination of the double top, the perforated side plates, and the elevated oven, the same being arranged and operated in the manner and for the purpose described.

No. 19,650.—CHRISTIAN RAUB, of Davenport, Iowa.—*Improvement in Cooking Stoves.*—Patent dated March 16, 1858.—In the engravings D E F G are four separate cooking stoves which are heated simultaneously by the fire in the chamber A; each of these stoves are provided with an oven H, with doors I; K is a water chamber, through the centre of which passes the stack L, through which the fuel is fed into the stove; M is the smoke stack; N the pipe for the escape of smoke; L M the draft of air through the grates  $\alpha$ , which are regulated by the sliding dampers C.

The inventor says: I would state that letters patent were granted to me on the 20th of October, 1857, on a stove, in which I have claimed the combination of the feeding stack with the spreading cone, and the simultaneously acting dampers. I therefore do not lay claim to these here.

But I *claim* the arrangement described of the series of stoves, fed by one central stack, and provided with one central smoke stack and a central water boiler, substantially in the manner and for the purpose set forth.

No. 19,651.—CHRISTIAN RAUB, of Davenport, Iowa.—*Improvement in Cooking Stoves.*—Patent dated March 16, 1858.—The kindling material is placed upon the grate  $\alpha$  through the aperture *m*. The



cover *p* is then raised, and the coal is fed into the stove through the trunk *H*, and falls down upon the spreader *G*. When the fire is kindled the atmospheric air enters the stove, as seen in the engravings *o* and *z*, and the heated gases pass through the flues which surround the ovens *C D E F* and escape through the pipe *M*.

*Claim.*—The arrangement of the feeding trunk and its water chambers in combination with the fire chamber, ovens, and flues, for the escape of the gases of combustion, substantially in the manner and for the purpose set forth.

No. 19,956.—JAMES SPEAR, of Philadelphia, Pennsylvania.—*Improvement in Cooking Stoves.*—Patent dated April 13, 1858.—This improvement relates to the means by which minute jets of heated air are introduced at pleasure into cooking stoves, or ranges, immediately above the ignited fuel, for the purpose of aiding the conversion into flame of the greater portion of the gaseous products of combustion, which would otherwise pass off through the flues without being consumed.

*Claim.*—The hollow centre piece *p*, when connected with the hot air tube *t*, and constructed in the manner and for the purposes set forth.

No. 20,265.—RENSSELAER D. GRANGER, of Philadelphia, Pa.—*Improvement in Cooking Stoves.*—Patent dated May 18, 1858.—This invention consists in arranging an oven, constructed of burnt fire clay, or other material capable of absorbing and retaining heat, with an ordinary cooking stove, in such a manner that the products of combustion may be caused to pass either through the said oven or around the same. In connexion with the clay lining is an annular perforated tube *M* and air-pipe *N*, so constructed and arranged that the unconsumed gases in the products of combustion shall be ignited before they pass into the interior of the oven.

The inventor says: I *claim*, first, combining an oven, constructed of burnt fire clay, or other equivalent material capable of absorbing and retaining heat, with an ordinary cooking stove, in such a manner that the products of combustion may pass either around or through the interior of the oven for the purpose specified.

Second. The arrangement of the annular perforated tube *M* and its air-pipe *N*, with the lining *G*, the same being arranged substantially as and for the purpose set forth.

No. 20,450.—JAMES SPEAR, of Philadelphia, Pa.—*Improvement in Cooking Stoves.*—Patent dated June 1, 1858.—The nature of this invention consists in the construction of centre pieces *A B*, covers *M M*, and top plates *D* on cooking stoves and ranges, to prevent them from being affected by excessive heat; and also for the introduction of small jets of heated air directly over the fire, for the purpose of igniting the gas arising from the coal.

The inventor says: I *claim*, first, the adjustable hollow front and middle centre pieces *A* and *B*, perforated on the lower side, arranged and constructed in the manner set forth and for the purpose described.



Second. I claim the curved plate D, with lip *i*, when connected with front plate H and top plate G and hollow centre pieces A and B, or their equivalents, constructed in the manner and for the purpose set forth.

Third. I claim the hollow covers M M, constructed in the manner set forth and for the purpose set forth.

Fourth. I claim the combination of the covers, as constructed with the centre pieces as constructed, substantially as set forth.

No. 20,430.—MARCUS L. HORTON, of Claremont, N. H.—*Improvement in Cooking Stoves*.—Patent dated June 1, 1858.—The air, coming in through the dampers D D, passes through the tube G, where it is heated, and then enters the open space O; by opening the register H, it is let into the oven for baking purposes; then by opening the register I it will pass into the air chamber M, and then through register J and the rear damper into the pipe.

*Claim*.—The arrangement of the register C, dampers D D, hot-air chambers O and M, and register H I and J, for admitting, controlling, and regulating the heated air, as set forth.

No. 20,682.—GEORGE G. RICHMOND and GEORGE W. PITTOCK, of Troy, N. Y., assignors to Themselves, C. PHELPS, and J. LOWN, of said Troy, and said PITTOCK having assigned his interest in the same to D. B. CARVER, of same place.—*Improvement in Cooking Stoves*.—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventors say: We *claim*, first, the arrangement of the passages J, provided with dampers C, with hot-air chamber D and slide K or L in the oven C, as described, whereby the intensely hot air of the chamber D may be directly applied to the otherwise insufficiently heated under side of articles baking upon the slide, and to the upper side of those on the oven bottom.

Second. We claim, in combination with the fire-pot A, plate M, chamber D, passages J, and slide K or L in the oven C, arranged together in the stove as described, the top plate E of the oblong hot-air chamber D, constructed substantially as represented, whereby the heat of the air admitted into the oven between the two tiers of articles baking is augmented.

No. 20,668.—SAMUEL B. SPAULDING, of Brandon, Vermont.—*Improvement in Cooking Stoves*.—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim any particular form or construction of stove.

What I *claim* is the extending of the bottom of the stoves and flues G H H at the back end, so as to form a boiler seat for the reservoir E, so that by the peculiar arrangement of the sliding plate or damper F the reservoir can be heated at pleasure without affecting in the least the other operations of the stove.

No. 20,733.—SILAS T. SAVAGE, of Albany, New York.—*Improvement in Cooking Stoves*.—Patent dated June 29, 1858.—The object of this invention is to permit the use of bituminous coal to effect the



heating of the oven without the consequence of fouling the flue surrounding it with the fuliginous matter passing over in the smoke of that kind of coal.

The inventor says: I do not claim the employment of hot air to heat an oven.

But I *claim* the arrangement of air tubes *t t t* across the main flue of a cooking stove, for the purpose of receiving and transmitting the caloric of the fuel to the walls of an oven by a current of heated air, substantially as set forth in the specification.

No. 21,171.—JOHN L. STEWART, of Nashville, Tennessee, assignor to RUDOLPH A. NATHURST, of said Nashville.—*Improvement in Cooking Stoves*.—Patent dated August 10, 1858.—The object of this invention is to prevent the escape of the products of combustion, smoke, gas, &c., from cooking stoves when in use—an object not hitherto attained on account of the exposure of the fire while cooking vessels were being adjusted in and removed from the holes in the top plates.

The inventor says: I do not claim the placing of an oven over the fireplace of a stove, for such an arrangement may be seen in many cook stoves.

But I *claim*, in connexion with the sunken recesses *d*, the use of flues or passages *d e f*, substantially as and for the purposes set forth.

No. 21,518.—APOLLOS RICHMOND, of Brooklyn, Connecticut.—*Improvement in Cooking Stoves*.—Patent dated September 14, 1858.—This invention consists in giving to the front of the oven a curved or projecting form, and in combination therewith, in arranging the boiler holes around it and extending back under it in a curved form, the fire chamber, whereby the four boiler holes as well as the oven are brought into the immediate vicinity of the fire and a stronger construction obtained without increase of bulk, and the fire chamber rendered capable of more readily accommodating pieces of wood of irregular forms.

*Claim*.—I am aware that a stove was patented to J. Curtis, January 27, 1843, in which the oven projects forward in a rectangular form, having the boiler holes arranged around it, but consider my improvement as differing from said stove, since my oven projects forward in a curved form, and since my fire chamber is also of a curved shape, while that of Curtis' stove is rectangular. I do not, however, lay any claim to either the form of oven or fire chamber separately, or to such construction as embraced in Curtis' stove.

But I *claim* extending the oven forward in a curved form and arranging around it the boiler holes, as set forth, in combination with the curved fire chamber; the whole being constructed and operated as described for the purposes set forth.

No. 21,900.—JOHN PEASON, jr., of Newburyport, Connecticut.—*Improvement in Cooking Stoves*.—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the combination and arrangement of the hollow back *E* of the fireplace with the oven *B*, the fireplace *C*, and the flue *I*, whereby the heat of the fireplace and the said flue is made



to warm the air which passes into the hollow back, such air being subsequently discharged into the oven, as described.

I also claim the combination and arrangement of the smoke flues I K K K and the air flues O N M M, the whole being disposed with respect to the oven essentially as described.

I also claim the air guard S as arranged on the upper smoke flue, and with respect to the air register and discharge pipe thereof, substantially in manner as specified.

No. 22,121.—RICHARD M. HERMANCE, of Stillwater, New York.—*Improvement in Cooking Stoves*.—Patent dated November 23, 1858.—This improvement relates to the arrangement of the flues which conduct the gases of combustion from the fire-box A about the oven B to the exit or smoke-pipe C, in such stoves only as have the fire-box located at the front end of the upper part of the stove, the oven placed under and back of the fire-box, and the exit-pipe at the back end of the top of the stove.

*Claim*.—The arrangement of the flue strips T T<sup>1</sup> in the chamber D, in combination with the fire-box A, descending flues E E<sup>1</sup> upon the sides of the stoves and oven, flues under the back of the oven, and exit-pipe C, arranged and operating substantially as and for the purposes set forth.

No. 22,147.—GIBSON NORTH, of Philadelphia, Penn., assignor to NORTH, CHASE, & NORTH, of said Philadelphia.—*Improvement in Cooking Stoves*.—Patent dated November 23, 1858.—In describing his improvement the inventor says: I make the adjustable back of my fire-box with a channel, zigzag groove *e e*, which forms, with the back plate of the same, a circulating air chamber, in which fresh air is continually heated and allowed to mix with the escaping gases at the apertures *i i*. In order to make the chamber as tight as possible, furnishing a continuous and perfect channel for the air to pass up, and to secure a thorough heating of the air before it is admitted into the draught of the stove, I make use of the supplementary grooves *m m*, which may be fitted into projections *n n* on the adjoining plate, and rendered air-tight by cement. At *d* are apertures for admitting air into the heating chamber *e e*.

*Claim*.—The arrangement of the grooved back of the fire chamber and cold air chamber in the flue and the guard plate at the corner of the oven, substantially as described and for the purpose specified.

No. 22,223.—FEDERAL C. ADAMS and JOSEPH PECKOVER, of Cincinnati, Ohio.—*Improvement in Cooking Stoves*.—Patent dated December 7, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We are fully aware of the common use of vertical partitions in stoves to divide the descending from the ascending portion of a flue, but know of none constructed and arranged in this manner.

We are also aware that it is common to admit air in various ways and for manifold purposes, but not in this precise manner and for these purposes.

Therefore, we *claim*, in combination with the smoke passages formed by the single vertical and inclined partition E, arranged with regard



to the exit aperture B, as described, the admitting of air under the grate into the air spaces, and from thence into the smoke passages, by means of the perforations in the lip or flange of the back lining plates of fire-box, all substantially as and for the purposes set forth in the specification.

No. 20,133.—JAMES ESTERLY, of Albany, New York.—*Improvement in Ovens for Cooking Stoves*.—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

I am aware that stove ovens have been in whole or in part lined with brick gypsum and other non-conducting substances, the object being in those cases to prevent the radiation of the heat from the interior of the ovens, either to make a cool, summer arrangement, or to retain the heat internally. This I disclaim, as not being the intention of my arrangement and invention, which requires not non-conducting, but slow-conducting solid material; not to keep heat within the oven, but to transmit heat applied externally slowly and steadily to the interior of the oven.

But what I *claim* is the construction of stove ovens or analogous structures by surrounding them with double outside walls, containing in the chamber formed within them some slowly conducting and radiating solid material to absorb heat communicated on the outside of the chambers and radiate the same internally, substantially as described in the specification.

No. 21,046.—MERRIMAN P. DORSCH, of New York, N. Y., assignor to PETER DORSCH, of Schenectady, New York.—*Improvement in Stoves for Burning Soft Coal*.—Patent dated July 27, 1858.—In the centre of the fire-box B is placed a perforated cone E, which is open at its bottom so as to receive the necessary air to effect the combustion of the coal as well as its evolved gases. On top of this perforated upright cone is placed an inverted perforated frustum F, with a closed cover *e* on it.

The inventor says: I am aware a perforated cone for admitting jets of air to fuel is not new. I am also aware that a rosette furnished with holes has been used. I do not, therefore, claim either of these things individually.

But I *claim* the combination of the perforated cone and rosette when arranged with regard to the fire-box and operating as set forth and represented.

No. 19,114.—PATRICK MIHAN, of Boston, Massachusetts, assignor to Himself and GILMAN DAVIS, of Boston, Massachusetts.—*Improvement in Gas Stoves*.—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware of the gas stove of Price, as patented in Great Britain in the year 1852.

I am also aware of the gas stove of Kimberly, as patented in Great Britain in the year 1853.

My stove differs essentially from these; for in each of the said stoves of Price and Kimberly ordinary argand gas-burners are used, whereas my stove is constructed to burn air and gas in mixture; and when they burn together on a wire gauze or perforated cap or disseminator,



the volatile products of combustion differ materially from those resulting from the combustion of ordinary gas alone in air; aldehyde and formic acid and other disagreeable vapors result from the combustion of the air and gas when mixed preparatory to being burned.

My stove combines with these vapors a perfumed vapor, in order to render them agreeable, or to overcome their disagreeable effluvia.

I *claim* the combination of the perfuming chamber and apparatus with the air and gas-burner and the chamber of combustion.

No. 21,075.—MOSES W. KIDDER, of Lowell, Massachusetts.—*Improvement in Gas Stoves*.—Patent dated August 3, 1858.—In the engravings the combustion chambers or body of the stove is seen at A, at the bottom of which are the burners K, which are fed through the pipe H. The stove is surrounded by a chamber B, which is annular and cylindrical, and is connected with the former at the top by the tubes C, and at the bottom by suitable stay rods J, the whole being supported by the legs G.

*Claim*.—The condensing chamber B, with its trap I and pipe D, in combination with a combustion chamber, operating in the manner substantially as set forth.

No. 22,335.—THOMAS SHAW, of Philadelphia, Pennsylvania, assignor to Himself and C. S. PATTERSON, of said Philadelphia.—*Improvement in Gas-Burning Stoves*.—Patent dated December 14, 1858.—This invention consists in an arrangement of an inverted cone in a cylinder, said cone being attached to a gas pipe, and so arranged, in respect to a hollow projection on the said pipe, that the gas may be spread out in a thin stream and exposed to a current of air, the gas being thus mixed with oxygen prior to passing through a wire gauze disk. This wire gauze disk is arranged to overhang an opening, through which the gas passes to the gauze in such a manner that the exterior air may have free access to the under side of the overhanging portion of the gauze, thus insuring a perfect combination of the gas and an extended flame of intense heat. The oven is constructed in a peculiar manner to retain the heat, and at the same time to insure a perfect circulation of heated air through the interior.

The inventor says: I *claim*, first, the inverted cone c, when arranged within and in respect to the hollow cylinder A, and connected to the gas pipe B, substantially as and for the purpose set forth.

Second. Extending the gauze disk e beyond the opening for the passage of the gas, and so arranging the overhanging portion of the said disk that it shall be exposed to the air, as set forth and for the purpose specified.

Third. The construction of the oven, consisting of the inverted box D, its opening q, and lining E, and the inner cylinder k; the whole being arranged to form the intervening passages m n and p, for the purpose set forth.

No. 19,713.—DAVID S. QUIMBY, of Brooklyn, New York.—*Improved Stove Heating Apparatus*.—Patent dated March 23, 1858.—B is the heater of cylindrical form, and is placed within or upon the top of the body of the stove; D D<sup>1</sup> are division plates placed inside of the heater to confine the current of air brought in by the pipe C; E is the top



plate to the heater, and is secured to it. It has a series of apertures in it, which are placed over the passages formed between the division plates and the sides of the heater to permit the heated air to have egress from the heater.

The inventor says: I do not claim the use or construction of the stove; nor combining a heating stove and heater in one apparatus; nor bringing a current of cold air to the heater, to be heated and diffused in the same or another room.

But I *claim* the arrangement of the heating chamber B provided with deflecting plates D D<sup>1</sup>, and apertures in the top plate with the cold air flue in connexion with the stove or furnace A, constructed and operating as described.

No. 21,447.—SILAS T. SAVAGE, of Albany, N. Y.—*Improved Construction of Coal-Stove Lining*.—Patent dated September 7, 1858.—The object of this invention is to secure the lining entirely, or to a very great extent, from the influence of “clinkers,” and to secure comparative permanency thereto. This is effected by enclosing the lining of fire-clay within a partial framework of cast-iron in various ways, as is shown in the engravings.

*Claim*.—The employment of metallic framing to contain fire-clay or other lining for coal stoves, for the purpose of preserving it from injury by adhesion of clinkers, constructed substantially as described in the specification.

No. 20,415.—M. C. FAGAN, of Troy, N. Y.—*Improved Wood-Burning Stove*.—Patent dated June 1, 1858.—This invention relates to an improvement in that class of wood-burning stoves which are of cylindrical form, and consists in so constructing the stove that it may be extended when necessary, so that when short wood cannot be procured, the stove may, with the greatest facility, be adapted to receive longer sticks.

The inventor says: I do not claim broadly, or irrespective of the arrangement shown, a cylindrical stove provided with a circuitous draught passage, for such device has been previously used.

But I *claim* the extension C, constructed similarly to the main portion A of the stove, and arranged substantially as shown, so that the stove may be extended when desired, for the purpose specified.

No. 21,707.—WILLIAM B. TREADWELL, of Albany, N. Y.—*Improvement in Lining for Coal Stoves and Furnaces*.—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

*Claim*.—The employment of hollow blocks of metal, filled in with siliceous sand, as a new article of manufacture, to be used as a substitute in the place of fire-brick for the lining of the fire chambers of stoves and furnaces, substantially as set forth and described in the specification.

No. 21,410.—JAMES EASTERLY, of Albany, N. Y.—*Improvement in Grates for Coal Stoves*.—Patent dated September 7, 1858.—The nature of this invention consists in constructing the grate and the bar on which it rests, and combining therewith a clasp spanning the bar



to be permanently connected to the grate, having a projection extending out parallel with the bar to receive a lever with which the grate may be agitated on a level; and by connecting a lever to the end of the bar the grate may be lifted to a perpendicular position and empty the residuum from the furnace.

*Claim.*—The combination of the grate B, the bar D, and the clasp H, or its equivalent, when used and operating in the manner and for the purposes substantially as set forth and made known.

No. 21,467.—JAMES EASTERLY, of Albany, N. Y., assignor to Himself and DENNIS G. LITTLEFIELD, of said Albany.—*Improvement in Flues of Elevated Oven Cooking Stoves.*—Patent dated September 7, 1858.—The nature of this invention consists in dividing the flue of the stove where the oven is to be set on into three separate passages or flues, the centre passage to serve as a direct outlet to the exit flue; when desirable to entirely avoid heating the oven, the side passages for conveying, as required, the products of combustion and applying them for use at each end of the oven to be placed thereon, and combining with flues thus arranged within the stove an elevated or portable oven.

The inventor says: I do not claim the dividing of the flue of the stove for conveying the products of combustion to separate flues placed at each end of an elevated oven, or to the exit flue, by a centre passage; neither do I claim an elevated oven having a descending flue, with its flue space from end to end of the oven an open chamber.

But I *claim* combining with flues D D, and a centre passage arranged substantially as described within the stove, an elevated oven, having its flue space on its sides and top an open chamber, in connexion with a descending flue, with its exit at the base; the whole arranged and operating substantially as described and made known.

No. 20,919.—BIRDSSELL HOLLY, of Seneca Falls, New York, assignor to Himself and JOHN S. EDWARDS, of Seneca Falls, aforesaid.—*Improved Atmospheric Regulator for Stoves, Furnaces, &c.*—Patent dated July 13, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the employment of a pendulum or balance having a movable axis connected with the valve or damper A by the levers C and D, or their equivalents, in such a manner that the gravitating force shall increase as the damper closes, and diminish as it opens, for the purpose of regulating the admission of air to the fuel, substantially in the manner set forth.

I also claim the method of hanging the damper A by means of the convex pivot bearing C, arm *f*, and sliding pivot *d*, substantially as and for the purpose described.

No. 19,436.—DANIEL MOORE, of Brooklyn, New York.—*Improved Fire Tongs.*—Patent dated February 23, 1858.—In the engravings, *a* is the handle, *b c* are the moving and fixed legs of the tongs, *d* is the joint, *e* is a curved slide attached to the inner side of one of the legs *b*. The tongue *i* is connected to the inner side of the leg *c*, and slides in the slide *e* as the tongs are opened or shut.



*Claim.*—The slide *e* and tongue *i*, attached to the respective sides of the legs of the tongs, and acting in the manner and for the purposes substantially as specified.

No. 19,089.—JAMES P. HERRON, of Huntsville, Ohio.—*Apparatus for Ventilating Pulpits.*—Patent dated January 12, 1858.—The nature of this invention consists in attaching to and combining with a pulpit, desk, or rostrum, an apparatus whereby a supply of fresh, pure air is afforded to a speaker occupying such places, and at the same time admitting of medicating the pure air to be diffused around the pulpit for inhalation.

The inventor says: I am well aware that tubes, pipes and vents have been used for ventilating dwellings and other places, and such devices I do not claim.

But I *claim* the manner or mode described, with the inspiratory aura-duct formed as shown, and constructed of the mouth and jaw parts *c c d e e f f*, the receptacle *g g*, the tongue valve *i i J J*, in combination with the air-conducting tubes and pipes *a a a b b b*, or in any equivalent manner substantially the same.

No. 20,063.—ELIAS T. INGALLS and JAMES R. NICHOLS, of Haverhill, Massachusetts.—*Improved Steam Warming Apparatus.*—Patent dated April 27, 1858.—The claim and engraving explain the nature of this invention.

The inventors say: First. We *claim* the device as set forth for increasing or diminishing the capacity of the fire chamber, so as to maintain a larger or smaller amount of fuel in a state of combustion.

Second. We claim vessel I, in connexion with flexible pipe J and spring L, operating together as described, for controlling a valve or valves affixed to boilers for regulating steam pressure.

We disclaim so connecting this arrangement as to control dampers in the smoke flue and draught, in the manner embraced in C. Devport's patent of March 11, 1856.

Third. We claim the device, constructed essentially as described, for supplying water to the boiler.

Fourth. We claim, in the construction of fluted or corrugated radiators of thin plates of iron facing across the corrugations, strips of metal securely fastened, and for the purpose as set forth.

No. 21,376.—GEORGE W. SMITH, of Aurora, Indiana.—*Feet-Warming Device.*—Patent dated August 31, 1858.—This invention consists in having a chamber or box placed in the ground or below the flooring adjoining the forge and the place where the operator or workman stands, said chamber or box being supplied with steam generated in a water twee, if such twee be used; or if such twee be not employed, a tank is inserted in the wall of the forge, so that steam will be generated therein by the heat of the forge, and the chamber or box on which the operator stands be supplied and heated with steam therefrom.

*Claim.*—The employment or use of the chamber I, when applied to a forge and heated by steam generated within a box E, or its equivalent, by the force of the forge, substantially as described.



















